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THE COMPLETE

PHONOGRAPHIC CLASS-BOOK,

CONTAINING A

STRICTLY INDUCTIVE EXPOSITION

OF

PITMAN'S PHONOGRAPHY,

ADAPTED AS A STSTEM OF PHONETIC SHORT HAND, TO THE ENGLISH LANGUAGE;
REFECIALLY INTERDED AS A SCHOOL BOOK, AND TO AFFORD THE
SHILLEST INSTRUCTION TO THOSE WHO HAVE NOT THE
ASSISTANCE OF THE LIVING TRACHER.

Stephen Pearl S. P. ANDREWS,

AUGUSTUS F. BOYLE.

BOSTON:

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PREFACE.

THE Writing and Printing Reformation naturally divides itself into several branches, of which Phonography is, perhaps, the most obviously important. The invention of a system of writing, combining more than the rapidity of stenography, with more than the legibility of long hand, while it is, at the same time, extremely simple and easy of acquisition, is at once admitted to be an immense benefit conferred upon the world.

Phonography needs only to be known, to captivate the lover of truth and harmony, as exhibited in nature, and the admirer of human ingenuity, while it interests equally the mere practical economist. Combining both a science and an art, it enchants the philosophic mind by the beauty and simplicity of its principles, while the *luxury* of being able, after a moderate amount of practice, to drop one's thoughts upon paper with the rapidity of speech, and with the clearness of unerring certainty to the eye, excites a degree of enthusiasm among all those who become familiar with Phonography, which has rarely, if ever, attached to any mere matter of science, and which may even seem like folly to the uninitiated.

The incidental advantages of Phonography, are, likewise, hardly capable of being over-estimated, especially as it relates to music, elocution, and the correct pronunciation of our own and of foreign languages. It seems inevitably destined to a most



INTRODUCTION.

1. Speech is the principal means by which we convey a knowledge of our own thoughts and feelings to the minds of others. It is understood through the medium of the ear, and had its origin, doubtless, in the infancy of the human race. The use of written signs, or letters, is an invention of more recent times for accomplishing the same purpose through the medium of the eye.

There are two methods of employing written signs. In the first place, they may be used directly as the representatives of ideas, just as we make the picture of a horse to signify a horse. In this manner, each character stands for an idea, such as is represented by a word when we speak; but with the difference above stated, that the representation is made to the eye, and not to the ear.

In this method of writing, therefore, the picture or sign used, does not, in any manner, denote the sounds which are made with the mouth, in speaking the word. The sign may be understood even by people of another nation who do not understand the spoken word at all. Still there are numerous difficulties in this method of communicating thought. We can easily represent a horse or a house, but how shall we represent good, bad, sweet, sour? The people that write by pictures ir

this manner are obliged to make a representation of some thing that is good, bad, sweet, or sour, instead of making a picture of the quality—which cannot be done. But there are so many things which have these qualities, that this method of writing is altogether indefinite; besides which, the object that they may choose to paint for good, will have, at the same time, other qualities which may be mistaken for the one intended. Hence, writing of this kind becomes quite arbitrary, and, from the great number of characters which must be employed, it is extremely burdensome, either to be learned or practised.

2. These difficulties have led most of the nations of the earth to adopt a different mode of communicating their ideas by signs. Instead of using a picture as a direct representative of an idea, they have analysed the spoken word, by which the same idea is represented, into its component parts or sounds, and have given to each of these parts, or elementary sounds, a separate sign. These signs combined, make what we call a written word; which is properly a sign of the spoken word, or utterance of voice, and, in a secondary manner only, the representative of an idea.

This latter method of writing, though not so simple and natural as the former, is nevertheless much more convenient, because, although our ideas are so very numerous, the sounds of the voice which are heard in all the words we speak, are found, when analysed into their simple elements, to be very few; so that a very small number of signs enable us to write all the words of a language, however numerous they may be.

The former method of writing was used by the Egyptians, and other ancient people, and is used at the present day by the Chinese. It is called hieroglyphic or symbolic, and sometimes ideologic, because it represents ideas directly; and the latter method, which is used by most other nations of the

world, is called *phonetic*,—from the Greek word *phone*, the voice, because it represents the sounds of the voice.

- 3. The old method of spelling and writing words, is, therefore, based upon the phonetic principle, and should represent the sounds of the voice in speaking. But this is far from being the case; from various causes, such as the foreign origin of our alphabet, changes which have occurred in the course of time in the pronunciation of many words, and the adoption of new words from other languages, without adapting them to any standard of orthography, it has deviated very much from the true representation of sounds, until it has become at length quite as difficult to be learned as the hieroglyphic system. Thus, for example, we now write the word though with six letters, each of which should represent a sound, or else not be written. Yet there are, in fact, only two sounds heard in the word. The first is made by placing the tip of the tongue just between the teeth, and breathing outward. This sound is represented by two letters, a t and an h, for the want of any single letter in the alphabet to denote the sound. The second is the sound which ought to be represented by the letter o alone, but a u, a g, and an h, are added to it, without any necessity, so far as the sound of the word is concerned. in the word sleigh, which we write with six letters, although there are but three sounds in the word, the first of which is the hissing sound represented by s, the second the liquid sound represented by l, and the third the vowel sound of a in mate, for which no less than four letters e, i, g, and h are written, no one of them having the slightest resemblance in sound to that of the letter a.
- 4. Phonography, from the Greek PHONE, sound, or voice, and GRAPHEIN, to write, signifies merely the writing of sounds, or writing according to sound. It follows that the term phonography is properly applicable to any system of writing which correctly represents the sounds of words, whether it be

long hand or short hand. Short hand phonography is, however, generally understood by the term when used alone; but there is likewise a system of long hand phonography, which, when it is spoken of, should be distinguished from the other by the addition of the word longhand.

Printing, in a correct orthography, corresponding with that used in phonography, is denominated phonotypy from PHONE, the voice, and TYPOS, a type. Any written letter, or mark, standing for a certain sound, is called a phonograph. A printed letter, or sign, used for the same purpose, is called a phonotype. The letters of our old alphabet are frequently not phonographs and phonotypes, as they represent no sound at all in those situations in which they are called silent letters; and they are not at any time accurate phonographs and phonotypes, as they are equally used to represent several different sounds: as e, a, o, &c., each of which shifts its sound four or five times in the different words in which it occurs.

The old irregular method of writing and printing words, as they have hitherto been spelled, is denominated, for the sake of distinction, heterógraphy, and heterótypy, from HETEROS, other, as differing from the phonetic mode; and to denote their falsity.

The science of sound, upon which phonography is based, is called *phonetics*.

5. A system of writing, to be perfect, should have one uniform method of representing every sound of the voice that is uttered in speaking, and which is obviously distinct. In the next place, it is desirable for practical purposes to obtain the greatest possible brevity, and, therefore, the characters or letters by which these sounds are represented, should be the simplest in their forms that can be found, and, in the third place, in order to facilitate the learning and use of them, they ought to be selected and arranged in strict correspondence with the nature and order of the sounds which they represent;

thus, sounds which are related to each other by a similitude of organic formation, should be represented by signs having in their forms a corresponding resemblance. In other words, the best system of writing will be I. true, II. brief, and III. analogical. These properties are admirably combined in the system of phonetic short-hand — the production of the genius and labors of Mr. Pitman.

The elements of speech, or the elementary sounds of the voice are properly divided into vowels and consonants. The sounds represented by these terms must be carefully distinguished, in the first place, from the written signs by which they are represented (which may be called vowel-signs, and consonant-signs, characters, or letters), and, in the second place, from the names that have been given to these signs. For example, in heterógraphy, the vowel which is heard in fate has the sound of the word aye; the written sign, or vowel-sign, has the figure or shape a, and the name of the letter is the same as the sound. But in the word far we see the same vowel-sign, and we call it by the same name as before, but we now hear the sound of the word ah, which is entirely different from the name. In the word many, the same sign represents the abrupt sound of the interjection eh! and in mortar it represents a sound very similar to that of the word err when it is imperfectly pronounced. In call, the same sign, with the same name, gives to the ear the sound of the word So, again, in this word call, we have the consonant-sign, having the form c, which we name like the word see or sea, but which sounds like k in kill; that is, it represents the short, hard, cracking sound which we make nearly back to the throat when we begin to say kill, and which may be heard by itself, if we stop suddenly before pronouncing the vowel. But this same letter, with the same name, is used in other words, as in cellar, where the sound which we hear is a simple hiss made between the tongue and the teeth, and very similar to

that made by a serpent or a goose; and this hissing sound is again represented by another letter, as in the word seat, with the form s, and a name like the first syllable of the word essence. This terrible confusion runs through our whole language in the old orthography. It presents the most serious difficulties in acquiring the arts of reading and writing, wasting one entire third of the time devoted to education, unfits us for learning the pronunciation of foreign languages, and, in various ways, exerts the most deleterious influence upon our habits of thought through life.

- 7. It is, therefore, of the utmost importance that a pupil should break up the habit of regarding a sound as identical with the name of a letter, and that he should understand that, when we speak of vowels and consonants, we mean sounds of the voice, as heard by the ear, without any reference to the characters by which they may be represented, or the names that may be given to such characters. No progress can be made in phonography until this is done.
- 8. A vowel may then be defined, to be the smooth or harmonious emission of sounding breath; as e, a, ah, MODULATED but not OBSTRUCTED by the organs of speech. (44.)
- 9. A consonant is a sound made either by a complete or partial contact of the organs of speech obstructing the sounding breath, in some degree varying from an entire BREAK or STOPPAGE of it, as p in rap, b in rob, &c., to a simple ROUGHNESS or ASPIRATION impressed upon a vowel sound, as h in heat, hate. (31.)
- 10. The consonant differs, therefore, from a vowel, much in the same manner as a crack, a crash, a hiss, or other rough sound differs from a musical one. The consonants being thus the harsher elements of language, form, like the bones of the human body, the substantial frame work of speech. The vowels then fill up the outlines, and make the perfect and harmonious development of language.

- The first thing to be done by the student of phonography, after fully appreciating what is meant by an element of speech, or a spoken sound, which is the same thing, is to analyse the words which are to be written into the elements which compose them, distinguishing the consonants and vowels from each other. It is rather difficult to utter some of the consonants without joining a vowel with them, as their sound is instantaneous and cannot be prolonged. The name which they bear (from the Latin con and sonans, sounding along with) was originally bestowed from the idea that it is impossible to pronounce a consonant without a vowel either This impression is, however, preceding or following it. Most of the consonants are even capable of being prolonged like the vowels. This is the case, for example, with the hissing sound (s) above mentioned, which may be lengthened out to any extent without at all loosing its own consonant quality. The most difficult to utter by themselves are those in which the contact of the organs is the most perfect and complete. The sounds which come particularly under this description are those represented by p, t, and k; the first made at the lips, the second at the teeth, and the third at the root of the tongue, near the throat. There is likewise a corresponding series, b, d, and g (hard, as in give), which are mere modifications of the former, as will be more fully shown in Chapter 1st, in treating upon the Alphabet. Both of these series of sounds are denominated mutes, as if it were intended to intimate that they are entirely destitute of sound. But it is manifestly absurd to speak of a species of sounds which are destitute of sound, and they are more properly distinguished by the term abrupts, which we, therefore, prefer.
- 12. The particular names which have been heretofore given to the first three of those letters, for example, in the old alphabet, are, pe, te, and kay; but in pronouncing these names we pronounce a vowel sound, which is of course no part

of the consonant. In the first two, the vowel is e, and in the third it is a or ay. If we then endeavor to pronounce so much of this name as is not the vowel, we shall hear a mere sudden crack or explosion of the organs, (at the commencement of the syllable, or a corresponding concussion at the end,) which is the true consonant. The effect will be different according to the seat of the sound, or part of the mouth at which it is made. A little practice will enable a person to explode these abrupt consonants without the aid of any appreciable amount of vowel sound.

The learner, who is unused to the analysis of sounds. will also experience some difficulty, doubtless, in separating a portion of the vowels from their connection with consonant sounds. The short and explosive vowels heard in sin, men, man, &c., are never named, in the old method of spelling, by their own sounds. They are called, on the contrary, by names which are the same as the vowel sounds which are heard in the words sign, mean, main; or, which is the same thing, like the entire words eye, ee, (Scotch word for eye,) and aye; and this and similar habits so confuse the appreciation of sound by the ear, that many persons seem to think that they actually hear the sound eye in the word sin, because they give that name to the letter i, which they use in writing it. To discover the true vowel sound, which is heard in this word, let the reader first pronounce the whole word distinctly, sin; then, dropping the final n, pronounce the remainder of the word just as he did before, and just as if he were going to pronounce the whole word, but suddenly stop before the last consonant is uttered. Let him then reject the s sound from the beginning of the word, preserving still precisely the sound which he had previously given to what then remains of the word, and he will have a short, jerked sound, which cannot be written by the old alphabet, for the want of any distinct character to represent it. This sound is the true vowel heard in sin; it has no resemblance to the sound of the word eye, but is, on the contrary, a short, explosive, and suddenly stopped sound, resembling e.

- 14. In the same manner, the vowel sound heard in the word men is not e, as it is called, but a sound much more nearly resembling aye. As in the former case, however, it is jerked in the utterance, sounding like the interjection $\tilde{e}h'$ sometimes used to denote inquiry. There are six of these stopped vowels in the language. A few hours practice will enable a person to pronounce them by themselves with nearly as much ease as he pronounces the full vowels.
- 15. When the student is able to analyse words into their component sounds, he is in a condition to begin to learn to write them; but he must always bear in mind that he is in no case to have the slightest regard to the old method of spelling. All the spelling which he will be required to do, will be merely to pronounce slowly, one element after the other, as distinct parts of the whole sound or word; which parts must be so small that they cannot be divided into anything less than themselves. These parts will then be the elements of sound, for which phonography will furnish the signs. For the sake of brevity, two or more sounds are sometimes written by one sign, but the means always exist of writing them separately when it is desirable.
- 16. It must be observed that it is not the province or business of phonography to teach the pronunciation of words, but merely to furnish the means of writing them in whatever manner the writer may choose to pronounce them. In this manner we shall be able to show how different writers actually do pronounce, which cannot be ascertained by the old method of writing; and thus phonography will doubtless be the means of finally settling pronunciation by one uniform standard among all who speak the language.

Note. — The learner of Phonography is recommended, in studying the following pages, to omit the study of those portions which are printed in small types, and which relate more to the science of Phonetics, until he has become somewhat familiar with the practical business of writing, in acquiring which, his motto should be

"PRACTISE AND PERSEVERE."

PHONOGRAPHY.

CHAPTER L

OF THE ALPHABET, AND THE SEVERAL DIVISIONS OF THE CONSONANT SOUNDS.

17. The term alphabet is derived from the first two letters of the Greek alphabet, - alpha and beta. Hence, in strictness, it is only applicable to an arrangement of letters beginning in the same manner. By usage, however, it is now applied to any arrangement of the letters by which a language is written. Thus, we speak of the Sanscrit alphabet, though the first letter in that, and other languages derived from it, is K. In the Arabic language, and in the Masoretic writing of the Hebrew, the term alphabet is not understood as including the vowels, which are written by small points placed as a kind of appendage to the consonant characters. The vowels are written in the same manner in Phonography; and it will be found of great advantage, in treating of it, to make the terms alphabet and alphabetical refer, in a similar manner, to the consonants alone.

THE ALPHABET.

SIGNIFICATION OF THE ALPHABETICAL SIGNS.

18. Before proceeding to the study of the alphabet, the learner must observe that part of the signs are *light* lines and curves, and part of them *heavy*. The reason of this arrangement is explained in the latter part of this chapter, and it will be found to be of the utmost importance, practically, and of great philosophical beauty, with reference to a true representation of sounds. (33.)

- 19. The following signs represent the consonant sounds belonging to the single letters of the old alphabet, which are placed immediately after them, but without any vowel addition, such as is heard in the names pe, ef, &c. (12.); thus, p; b; f; v; m; |t; |d; |s; |z; |t; |s; |s
- The following signs represent simple consonant sounds for which there are no single letters in the old alphabet, and for which combinations of two or more letters must, therefore, be used; thus / represents the sound of ch in much, or tch in witch. The sign (represents the sound of th in thigh; and (the corresponding heavy sign, that of th in thy. The difference between these two sounds, constitutes the only difference between the words thigh and thy when spoken. This difference is not noticed at all, in the old method of writing, though it is equally as great, and of the same kind, as the difference which exists between the sounds of t and d, as in the words tie, die. (33.) The sign \mathcal{L} represents the sound sh, heard in pressure; I that of zh in pleasure; and withat of ng in ring, sing, lov-ing.

21. The three small signs attached to the alphabet, under the name of ambigues, represent the sounds of w, y, and h (9). They are written in a peculiar manner, similar to that in which the vowels are written, and will receive a particular explanation hereafter (91, 97, 52). They are barely introduced here to complete the view of the consonant-signs; but they approach the nature of vowels, and, as their forms are quite different from those of the other consonant-signs, they are not generally included when we speak of the alphabetical characters. (17.)

Note. — C, q, and k, in the old-alphabet, have no sounds of their own. C sounds like k, in can, like s in cellar, like z in suffice, and like sh in commercial. Q always has the sound of k; and x sounds like ls in exercise, or like gz in exert. (77.) These letters, of course, have nothing corresponding to them in phonography, in which the sounds only that are actually heard are written. (15.)

OF THE MOVEMENT OF THE HAND IN MAKING THE ALPHABETICAL SIGNS.

22. The perpendicular and inclined signs are made by commencing at the top of the sign, and carrying the hand downwards. There are two or three exceptions to this rule, for the sake of greater convenience and elegance in writing, which will be noticed in another place. (81.)

23. The five following signs, -k; -g, hard; -m, -m, and -m are called horizontals, and are made from left to right.

The point where the pen begins to trace a sign, is called the beginning of the sign, and the point at which it stops is called the end. It is important, as will be seen in the next chapter, that these directions for making the sign should always be observed. (36.)

- OF THE FORMS AND SIZE OF THE ALPHABETICAL SIGNS, AND OF THE BEST METHOD OF HOLDING AND USING THE PEN.
- 24. The simplest signs which it is possible to obtain for written characters, are I the dot or point, II the straight line, and III the curve. The dots are used as vowel-signs. (34.) The consonant-signs are, therefore, either straight lines or curves. The curves are quarter circles, or arcs of 90 degrees; thus, they are just enough curved to show distinctly that they are deviations from a straight line. The straight line cannot be placed in more than four positions, with a sufficient difference to be distinguished readily, and to prevent mistaking one sign for another. These positions of the straight line, as it is employed in phonography, are the follow-

ing, viz.: a perpendicular, a horizontal, and an inclination of 45 degrees on each side of the perpendicular, thus:—



But by making use of light and heavy lines the number of these signs is doubled. Again, by dividing the circle into quarters, in two different ways, eight distinct *curves* are obtained, thus:—.





Then, by making these curves light and heavy, the number is doubled, giving sixteen curve-signs, which added to the eight straight-line signs, make twenty-four—the greatest number of lines and curves which can be used without danger of confusion. But the number of single consonants being only twenty-one (including ch and j), this still leaves us a surplus of three signs, which are subsequently brought into use.

25. A line from point to point of any curvedsign, should be equal in length to the straightline signs.

- 26. Different persons will make their consonant-signs somewhat different in length; but the greatest beauty of the hand-writing seems to be obtained when they are made about one-sixth of an inch long, thus:

 In the tables, at the heads of the chapters in this book, they are enlarged, so as to strike the eye more readily, and so to aid the memory in retaining them; and the learner will do well to make them large at first.
- 27. The curved heavy consonant-signs should be made thick in the middle only, and taper off towards each extremity, otherwise they will present a clumsy appearance.
- 28. The learner should always write upon lines, and he may use either a quill or a steel pen, or a pencil with which a light or heavy mark may easily be made. He should be careful not to hold the pen as for common writing, for this position of the hand is adapted for the formation of letters constructed upon a totally different principle from the signs used in phonography. The pen should be held loosely in the hand, like a pencil for drawing; with the nib turned in such a manner that the sign and the struck with ease. It is then in a proper position for striking any sign, except in and which are of comparatively rare occurrence,

and, for these signs, the pen can be turned in the hand, as may be easily done when it is held in the manner described. Reporters generally write with a pencil, and upon ruled paper. Letters, and all documents for future reference, should be written with a pen.

The beginner generally experiences some difficulty, unless he has been accustomed to back-handed writing, in making the strokes from left to right; and is apt to imagine that he shall never be able to strike with the same ease with which he can execute This difficulty is, however, entirely the result of habit in writing otherwise; and after a very short practice he will find that the muscles acquire complete facility in this and all the other movements required in Phonography,—proving that the hand is an instrument admirably adapted to the execution of all geometrical forms.

29. No effort should be made by the learner, at first, to write rapidly; accuracy alone should be aimed at, and rapidity will be the necessary result of practice. Ruled paper is preferable, especially for beginners, though not absolutely necessary. When plain unruled paper is used, a line is always presumed to pass through the bottom of the consonants, as they occur singly, thus:

CLASSIFICATION OF THE CONSONANTS.

TABLE.

EXPLANATION.

30. The system of Mr. Pitman is founded upon a minute and careful examination of the organs of speech. He was led, therefore, to place the letter p, the sound of which is the least complicated of all the articulations, at the head of his alphabetical arrangement. This sound is formed at the very edges of the lips, not requiring the assistance either of the teeth, the

tongue, or the palate, in its production; and is among the first consonant sounds uttered by a child. Next, in order, stands b, and then, according to his arrangement, t, d, &c.

It is believed, however, that the arrangement of the alphabet which we have adopted, and to which we have adhered throughout the present work, will exhibit the beautiful harmony of the system resulting from Mr. Pitman's analysis of the sounds, in a degree of which he himself has been hardly aware. Truth, when once discovered, unfolds new beauties to all who contemplate it.

In the above arrangement of the alphabet, if we first separate the signs into perpendicular columns, as they stand, the several columns will represent the several classes of consonant sounds, with reference to their local and organic formation, that is, with reference to the parts of the mouth at which, and by which, they are formed. If we separate them again horizontally, they represent the same sounds, classified with reference to the application of the organs in forming them, and the resulting nature or quality of the sounds themselves. The vacant spaces, in the alphabetical table, may be filled by the signs of sounds which are heard in foreign languages.*

^{*}The Alphabet of Nature, embracing the sounds of which all languages are composed, includes a given number of sounds, probably not exceeding in all sixty vowels and consonants. From these, the English select those sounds which are necessary for their language, and the French, the Spanish, the Germans, &c., those which they require, always within the same general circuit of sounds; but each leaving some sounds unemployed, which are found in the Alphabet of Nature. To discover and arrange the full alphabet of nature, is a distinct branch of the writing and printing reformation. The present work relates only to the English language; but, as this language has in it an unusually large number of sounds, most other languages can be written quite intelligibly by our phonetic alphabet.

FIRST DIVISION OF THE CONSONANTS.

31. In the first division of the consonant sounds, we begin with those formed at the lips, as p, b, f, &c.; we then go back to the region of the tip of the tongue, and the teeth, as t, d, &c.; then to the hard palate or roof of the mouth, a little back of the teeth, as ch, sh, &c., and, finally, to the root of the tongue, near the throat, where the k is formed. Hence, these several classes are called, I. Labials or Lip-sounds; II. Linguadentals (tongue-teeth sounds); III. Palatals; and IV. Gutturals or Throat-sounds.

The Labials are made by quite or partially closing the lips, or by placing the upper teeth upon the lower lip. The Linguo-dentals, by placing the point of the tongue against the tips or roots of the teeth, or bringing them nearly into contact. The Palatals are made in nearly the same manner, but a little farther back; and the Gutturals by pressing the root, or body of the tongue, against the roof of the mouth.

SECOND DIVISION OF THE CONSONANTS.

- 32. The second division of the consonant sounds, relates, as already stated, to the method of applying the organs in forming them, and to the resulting nature or quality of the sounds. They are denominated, accordingly, I. Abrupts; II. Semivowels; III. Liquids; IV. Resonants, or Nasals; and V. Ambigues.
- I. The abrupts, are made by a complete contact of the organs of speech, interrupting, or entirely stopping the breath or voice, and are the most perfect of the consonants. (11.)

 They are divided into whispered and spoken, a difference which requires a special explanation. (33.)

- II. The semi-vowels are made by a less perfect contact of the organs of speech, so that the breath or voice partially escapes while they are uttered. Hence, as they begin to approximate towards the character of vowels, they are called semi or half-vowels. They are, likewise, both whispered and spoken. (9, 10.)
- III. The *liquids* permit a still freer escape of the breath, and hence approach more nearly to the nature of vowels than the *semi-vowels*. They have so much of the *vowel* character, that they readily unite with the other consonants, (abrupts and resonants) forming double consonants, and sometimes syllables, without the aid of any vowel. (102.)
- IV. The resonants or nasals combine, in their formation, the character of the abrupts and liquids. They are made by complete contacts of the parts of the mouth, while, at the same time, the sounding breath, or voice, is permitted freely to escape into the cavities of the head, and through the nose.
- V. The ambigues hold, as it were, a middle place between the vowels and consonants. They are the feeblest of all the consonants, seeming to be mere modifications of vowels, by which the breath is very slightly obstructed. (21.)
- Note i.—There are two sounds among the abrupts, as given above, which, it is thought by some, may be analysed into simpler elements. These are $\angle ch$, and $\angle j$; the first of which seems to be composed of |t, and $\angle sh$, and the other of |t|, and $\angle sh$, but, for practical purposes, it is found extremely convenient to represent them by single signs.
- NOTE II. The sounds of and and are made by stopping the voice at the lips, teeth, and throat, and are classed accordingly as Labial, Linguo-dental, and Guttural; but, at the same time that the voice is stopped at these points, it is thrown into the nose, or sounding board of the head, and made to ring there; hence they are called resonants, from the Latin, resonare, to ring, when we wish to speak of the quality of the sound; and nasals, when we speak of the seat of sound, at which the peculiar quality of their sound is imparted. They are generally known by this last name.

From this description, it is obvious that they are also a species of ambigues, connecting two classes of consonant-sounds, while the ambigues, so called, connect the vowels and consonants with each other. A strict attention to the place in the mouth where the different sounds are formed, will do a great deal to help the memory in retaining the signs.

OF THE DIFFERENCE BETWEEN THE WHISPERED AND THE SPOKEN CONSONANTS REPRESENTED BY THE LIGHT AND HEAVY LINES IN THE ALPHABET.

33. It will be seen by the student that the abrupts and semi-vowels are arranged in pairs, one of each pair being represented by a thin or light line, and the other by a corresponding thick or heavy line. By attending to any two of the sounds thus classed together, it will be found that one is, in fact, but a very slight modification of the other; thus the sounds of $\ \ p$, and $\ \ b$, for example, are almost identical. We often hear persons saying babtist for baptist, and, on the other hand, Jacup for Jacob, without their being aware that they pronounce differently from others.

To follow nature, therefore, and preserve a correspondence between signs and sounds, the signs should be so formed as to show the resemblance of different sounds, as well as their difference; hence, there should be an analogy between the form of the sign and the sound represented by it. Upon this principal the Phonographic alphabet is made. The sound of p being a light whispered sound, is represented by a thin or light stroke \ and the corresponding sound of b being a heavy intonation of the voice, is represented by a heavy stroke, \ being in the same position as \ Thus, both the difference between the sounds p and b, and their resemblance, are at once represented. The same law of correspondence in sounds is found to prevail in the alphabet of nature, dividing them into pairs; and the same rule of representation, by light and heavy correspondence.

ponding signs, has, therefore, been adopted, both as respects vowels and consonants. It is natural to represent a *light* sound by a *light* stroke, and, in writing, it is perfectly easy to make it.

The same may be said in reference to a heavy sound. After a short practice in writing, every pupil finds that the heavy strokes are made without any additional effort; they flow from the pen with as much facility as their corresponding heavy sounds do from the lips. If we observe more clearly the nature of the difference between the light and the heavy intonations of these consonant sounds, we find that it depends on the time at which the speaking or loud voice is joined to or withdrawn from the utterance of the elements. When we utter the mere elementary sound of p, for example, not following it by a vowel or joining it to anything which precedes or follows it, it is heard as a whisper only; and, if, then, a vowel is made to follow, so as to form a word, as pay, the speaking, or loud voice, begins to be heard just at the instant when the lips are opened. But when we utter the sound of b, as a mere element, we hear the loud voice a moment before the lips are parted. This difference will become still more obvious, if a person endeavors to make these two sounds without opening the lips at all. In the first case no sound will be heard; and, in the other, a heavy rumbling of the voice, forcing its way, as it were, outward, will be distinctly audible. At the end of a syllable the case is reversed. In making the sound of p, the speaking voice is withdrawn just at the instant at which the lips close; as in top, fop, and in making that of b, it continues to be heard a moment after, as in rob, fob.

The first series of abrupts and semi-vowels, are hence called whispered consonants, and the second spoken consonants.

The similarity of these two classes of consonant-sounds is so great, that, if at any time the difference in the weight of the lines is not clearly made, this circumstance does not seriously affect the legibility of the writing to the experienced Phonographer. Thus, for example, if the word *Massachusetts* were written so as to be pronounced *Mazajuzedz*, it could hardly be mistaken, and the intention of the writer would be quite obvious.

It is by availing ourselves of this natural analogy of the sounds, and denoting it by characters having a corresponding analogy, that we are enabled to represent all the consonant sounds by signs which are simple geometrical figures — the straight-line and the curve, — which cannot be done otherwise; and which has never before been accomplished in any system of writing.

CHAPTER IL

OF THE SIMPLE VOWEL-SIGNS, AND OF THE ASPIRATE.

TABLE.

First Group.		Se	Second Group.		
E •	• .	ን የ		- b	
ā•	• •		-1 ;	- 11/	
	_ •		-	_ `	

EXPLANATION OF THE SIMPLE VOWEL-SIGNS.

34. There are thirteen simple vowels in our language, the signs for which are divided into two groups; and hence they will be distinguished as the *first* and *second* group of vowelsigns.

The vowel-signs of each group are so arranged, as to show the different positions in which they are placed to the consonant-signs. They have three positions, and are called 1st place, 2d place, and 3d place vowel-signs, according to their position.

When the vowel-signs are placed at the beginning of a consonant-sign, they are called first-place; at the middle, second-place; and at

the end, third-place vowel-signs; and they have a local value; that is, they represent different vowel sounds, according to their position.

The signs of the 1st group are dots or points; the signs of the 2d group are short dashes.

The dots and dashes are made both heavy and light. The heavy dots and dashes represent full vowels, and the light dots and dashes represent the corresponding stopped vowels. The difference between these two kinds of vowels will be subsequently explained. (47.)

- OF THE MODE OF PLACING THE VOWEL-SIGNS TO THE PERPENDICULAR AND INCLINED CONSONANT SIGNS.
- 35. In writing, the consonant-sign is made first, and the vowel-sign is afterwards placed to it.

If the vowel occurs before the consonant, the vowel-sign is placed on the left-hand side of the consonant sign, provided the consonant-sign is perpendicular or inclined, whether a straight line or a curve. But, if the vowel occurs after the consonant, the sign for it is placed on the right-hand side of the consonant-sign.

OF THE SIMPLE VOWEL-SIGNS.

36. The heavy dot, when placed in the first position, opposite the beginning of the consonant-sign, represents the full sound of e in feet; thus, ||eat|, and ||tea|. When it is placed in the second position, opposite the middle of the consonant-sign, it represents the full sound of a in mate; thus, ||ape|| pay. When placed in the third position, opposite the end of the consonant-sign, it represents the full sound of a in psalm; thus, ||pa|| pa.

The heavy dots are called the FULL vowel-signs of the FIRST GROUP.

37. The light dot, placed at the first position, that is, opposite the beginning of the consonant-sign, represents the stopped sound of i in fit; thus, $|it; \downarrow if$. At the second, opposite the middle, like e in met; thus, $|ell; \searrow ebb$. At the third, opposite the end, like a in Sam; thus, $|at; \rangle$ as.

The light dots are called the STOPPED vowelsigns of the first group.

The heavy dash, placed at the first position, represents the sound of au in caught; thus, \neg ought; $\lceil daw$. At the second, that of u in cur; thus, $\neg crr$. At the third, or end, that of oo in fool; thus, | two; | ooze.

38. The heavy dash, which, in the table, is placed in a perpendicular position, is made parallel to the consonant-sign, and represents the sound of o in bone; it is placed in the second position, opposite the middle of the consonant-sign; thus, bow; show; ode; dough.*

The heavy dashes are called the FULL vowelsigns of the SECOND GROUP.

39. The light dash, placed at the first position, represents the sound of o in hot; thus, $\neg odd$; of. At the second, that of u in cut, curry; thus, $\searrow up$. At the third, that of u in full; thus, $\searrow or \searrow foot$.

The light dashes are called the STOPPED vowel-signs of the SECOND GROUP.

The dashes should be written at right angles to the consonant-signs, or, when more convenient, they may be a little inclined; thus, ought may be written either 7 or 7 or 7; but the sign for o must always be made parallel to the consonant-sign, as above. (38.)

^{*} The full vowel o has no corresponding stopped sound in the English language, and, therefore, there is no parallel vowel-sign in the table of vowel-signs. The stopped sound of o, though not recognised, is sometimes heard in the American pronunciation of the words stone, home, whole, &c.

OF THE MODE OF PLACING THE VOWEL-SIGNS TO
THE HORIZONTAL CONSONANT-SIGNS.

The method of placing the vowel-signs to the horizontals, ~ ~ — — necessarily differs from that which we have explained with reference to the perpendicular and inclined consonant-signs. They are placed above and below, in this manner; viz., if the vowel occurs before the consonant, the vowel-sign is written above the horizontal consonant-sign; if it occurs after the consonant, it is written below. The firstplace vowel-sign occupies a position at the beginning; the second-place at the middle; and the third-place at the end of the consonantsign; (23.) the order of the vowel-signs being, in this case, from left to right; thus, - eke; - own; - egg; - am, in which words the vowel occurs before the consonant; and, - key; which the vowel occurs after the consonant.

With respect to the horizontals, therefore, it must be remembered that we read from above, downwards, instead of from left to right, as we read with the perpendicular and inclined consonant-signs.

OF THE METHOD OF NUMBERING THE VOWEL-SIGNS.

41. As before stated, the vowel-signs are called 1st, 2nd, and 3rd place vowel-signs, according as they occupy the 1st, 2nd, or 3rd position against the consonant-sign to which they are written, that is, at the beginning, middle, or end. It is of the highest importance to the student of Phonography that he should constantly associate each vowel with the position which its sign must occupy.

The following table will give an exact view of the simple vowel-signs with reference to their position:—

TABLE OF THE PLACES OF THE VOWEL-SIGNS.

1st place.	e T	ø]	•	au 7	ău 7
	eat	it		aught	odd
2nd place.	a 🚽	X/	o •	uh A	ŭh 🥆
	eigh t	ell	ode	err	up
3rd place.	ah 🕽	āh]		∞ <u> </u>	ŏo L
	are	at		do	(omitted)

Note. — The stopped-vowels are designated in the table, when printed in the letters of the old alphabet, by the small half circle over the same letter which represents the corresponding full vowel; thus, \check{e} is stopped e in fit, (not short i,) \check{a} is stopped a in met, &c. The phonographic vowel-signs are placed to different consonant-signs so as to form words. By committing these words to memory, as they occur in each of the lines in the preceding table, the positions of the signs will be easily retained.

- OF THE MODE OF CLASSIFYING AND NUMBERING THE VOWELS, CONSIDERED AS SOUNDS, WITHOUT REFERENCE TO THEIR SIGNS.
- 42. The simple vowels form one series, which are divided into two corresponding classes—the *full* and the *stopped* vowels. They are numbered from one to seven in each class, as follows:—

Full.

No. 1. e as in feet.

" 2. a " mate.

" 3. ah " psalm.

" 4. au " naught.

" 5. uh " cur.

" 6. o " note.

. o. o . note.

4 7. oo " fool.

Stopped.

No. 1. ĕ as in fit.

· 2. ă " met.

" 3. ăh " Sam.

" 4. aŭ " cot.

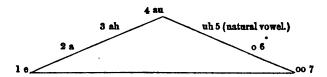
" 5. ŭh " curry.

6 has no corresponding stopped

" 7. ŏo " foot.

43. The vowels in the first column above, are called, the first, second, third, fourth, fifth, sixth, and seventh, full vowels; and those in the second column, the stopped vowels. The stopped vowels are short sounds which correspond to the full vowels, and are numbered accordingly. Both the full and stopped vowels should be learned, so that the pupil will know each one separately by the number which it holds in the series.

The vowels are ranged in both classes, in their natural order, somewhat like the musical notes in the gamut. At No. 1 the mouth is least opened, and the corners of the lips most drawn back; hence it is called the slenderest and the sharpest of the vowels. No. 2 opens the mouth a little more; No. 3 still more; and No. 4 most of all; hence this is called the broadest vowel. At No. 5 the mouth is less opened. In pronouncing the full vowel of this number, the organs of speech are relaxed into their natural or unconstrained position, and vocal breath is uttered through them in that shape; hence this is called the NATURAL vowel. (50.) At No. 6, the mouth being nearly in the same position, the lips are rounded nearly into a circle; and at No. 7 they are protruded into a tube. Hence, this last may be called the roundest of the vowels. If we place these vowels, therefore, to a triangular diagram, the numbers, one, four, and seven, will occupy the angles; the others are intermediate, thus -



- 45. The 1st and 4th sounds may be regarded as the opposites of each other, in the qualities signified by the terms slender and broad, and the 1st and 7th as the extremes in those qualities which are called sharp and round. Analogies of this kind have always been perceived, and have given rise to the different designations of sounds, as long, and short, broad, flat, &c.
- 46. The whole series of seven sounds, forms a harmonious and graduated succession, only slightly interrupted by the fifth or natural vowel, among the full vowels.

DISTINCTION BETWEEN THE TERMS STOPPED AND FULL, AND LONG AND SHORT.

47. It will be seen, in the preceding table, that there are two classes of simple vowels, which have a perceptible correspondence with each other, while they do not represent precisely the same quality of sound.

The first class are called full, and the second stopped. These terms must not be confounded with long and short, which relate, not to the quality or the nature of the sounds, but merely to the quantity of the sound uttered, or rather to the length of time during which the sound is continued. The stopped vowels are, in fact, always short, but the full vowels are not uniformly long. They are generally long in accented syllables, and short in those that are not accented; thus, in the words mate, Saviour, afraid, the vowel a is full and long, and in Sunday, aeriel, gateway, it is, at the same time, both full and short. The full vowels, whether long or short, are written in the same manner, by the full vowel-signs, that is, by the heavy dots and dashes. The distinction, not being essential and uniform, but varying with the emphasis and other incidental circumstances of speech, belongs as much to expression as to correct pronunciation.

The stopped vowels in the English language are always followed by a consonant sound in the same syllable. A vowel, not so followed, though it may be short, is always full, and must be written with a large dot or dash; for example, in the word indivisibility, the second, fourth, sixth, and seventh, syllables have the short quantity of the first full vowel, which is accordingly represented in each, when written, by the first-place heavy dot, though the beginner would be very likely to use the small dot for every syllable.

A full vowel is, therefore, merely a vowel which expires naturally after either a long or a short duration, and a stopped vowel is one which is abruptly broken off in the utterance.*

PARTICULAR OBSERVATIONS UPON SOME OF THE VOWELS.

48. There is one other vowel sound, coming between the second and third vowels, and heard in the words air, there, care, pair, hare, &c. This sound only occurs in English when followed by the consonant r in the same syllable, and is produced by the corrupting influence of this consonant, which, not being a perfect contact, but a mere trill or jar of the tongue, has a constant tendency to lose its consonant character, and, by combining with the preceding vowel, to change its pure sound.

This vowel may be described, when necessary, as No. 21.

^{*} It is regarded by Mr. Pitman, and Mr. Ellis, as the essential peculiarity of the stopped vowels, that they cannot be pronounced, except when followed by a consonant in the same syllable. We are not quite satisfied with this description of the stopped vowels. Any vowel is, it seems to us, stopped, in the same sense in which we speak of a stopped vowel, when it is, as it were, snapped off by a sudden and abrupt suspension of the voice, whether a consonant sound be heard after it or not. The fourth tone of the Chinese, called Yap shing, is nothing else but the stopped utterance of the vowels, and, what is very much in point, in the Canton dialect it is always followed by p, t, or k, the three most perfect and abrupt consonant sounds, while in the Mandarin, a more effeminate dialect, the consonants are entirely left off, the vowels still retaining the same tone, which is described by the Chinese scholars, as 'short, snatched, abrupt, and quickly treasured up.' In the Seneca, one of the North American Indian languages, there is likewise an entire series of stopped vowels, which end syllables and words. This pronunciation is marked by affixing the character h, which is not sounded, but merely shows that the voice is suddenly suspended. We have an instance of the same kind in the English interjection, eh! abruptly, and, as we think, ordinarily pronounced. (6.) If so, this forms an exception to the rule in the text.

In ordinary writing, however, one of the dots is omitted, leaving the second vowel-sign, which will then be read with this peculiar sound, when followed by the consonant r, so that no ambiguity results from this omission. The word air is, therefore, written thus, \rightarrow and other words of this kind in the same manner.

The 3d vowel ah, (a in father,) is named and sounded, as we frequently hear the name of the consonant r imperfectly uttered in naming the letters of the old alphabet. Some beginners are troubled by this circumstance to distinguish when the vowel or when the consonant is meant. The difficulty will be removed by considering the nature of the consonant r, which is, in most languages, a strong trill or sudden vibration of the tongue, and is so pronounced by the Irish and Scotch in speaking English. The English and Americans, however, seldom pronounce the r as an actual trill, but merely turn up the point of the tongue, and very slightly obstruct the vocal breath — a modification of the sound which is termed the halftrill. At the end of a syllable this obstruction is hardly perceived by many persons, and, by incorrect speakers, is frequently not even made, so that, in pronouncing the word > err, for example, nothing is really heard but the natural or full vowel uh. In the same manner, inasmuch as the old name of this consonant is made by prefixing a, sounded like the third full vowel (ah) to the letter r, thus ar, and as the trill, which the r should represent, is then sometimes suppressed, this vowel comes to be, in fact, all of the name that is heard, when the consonant is spoken of. This difficulty is obviated

by calling the consonant re, instead of ar; but the phonographer has but little occasion for the name, as he should accustom himself to give the sound instead, which it will be best for him to practise as a full trill. This consonant, therefore, must be written, in phonography, at the end of syllables, or following a vowel in the same syllable, as it is slightly heard in the pronunciation of the best speakers, though the general usage seems to tend to the complete obliteration of this sound in these positions.

50. The fifth full vowel uh is called the natural vowel, because it is made while the organs rest in the most easy and unrestrained position; thus, by merely opening the mouth, we breathe out the voice without any effort to modulate it, and the vowel is formed. This sound, the most frequent one in the language, occurs very often in most of the languages of Europe, none of which have any letter in their existing alphabets to represent it. It is represented, in English, in the old orthography, or heterography, by all the vowels in turn, and by numerous combinations of these vowels besides. When the vowels of the old alphabet have this sound, they are designated, in some of the more recent dictionaries, as obscure. It is heard in the following words, where the vowel is printed in italics, or where a hyphen is inserted: - along, China, important, practical, shopman, lover, confident, dozen, nadir, orator, error, anger, honor, partic-le, fab-le, bott-le, schis-m, rheumatis-m, ryth-m; sir, fir, firm, her, cur, burr.

In all these, and similar cases, this vowel sound is represented in phonography, by the heavy dash at the second or middle place, at right angles with, or inclined to the consonant character; as in the words \checkmark Anna, $\stackrel{\bot}{+}$ ago.

51. The learner must not forget that a full vowel is not always long. (47.) This vowel is, in fact, never long in English, except when followed by an r in the same syllable,

as in sir, her, burr, &c.; in which case some other vowel has been converted into this sound by the corrupting influence of the r. Indeed, this vowel is heard in almost every degree of length or quantity, from its long sound, in this position before r, to the shortest possible quantity which a vowel can have, as when it is heard in the words partic-le, fab-le, schis-m, &c. The existence of a vowel sound, in these latter cases, may be questioned by some, but it is believed that a comparison with the French pronunciation of similar words, in which the vowel is actually excluded, or else pronounced slightly at the end of the words, will convince the reader that we always insert a vowel-sound, however slight, before the final consonants in this class of words. As phonography, however, does not pretend to dictate in matters of pronunciation, questions of this sort will be finally settled by the authority of the best writers.

OF THE BREATHING.

52. The third or last of the three sounds called ambigues, in the alphabetical table, and represented in the old alphabet by the letter h, is distinguished as the breathing or the aspirate. It never occurs except immediately before a vowel, and it is written in phonography by a small dot placed before the vowel-sign; thus, hope, hat. (9.)

The dot should be made light, because, if heavy, it might be mistaken for a full vowel-sign, and create some confusion in words with which the reader is not familiar; thus, "

might be read ee-cat; but a stopped-vowel never occurs before another vowel, so that the small dot, although the sign used for a stopped-vowel, can only be read for the breathing, when in this situation.

There is, however, another sign for the breathing, the form and use of which will be explained hereafter. (87.)

CHAPTER III.

OF THE PROPER DIPHTHONGS.

TABLE.

First place,
Second place,
Third place,

EXPLANATION OF THE PROPER DIPHTHONGS, OR COM-POUND VOWEL-SIGNS, AND THE MODE OF PLACING THEM TO THE CONSONANT-SIGNS.

- 53. The small angular figure in the table, with the point downwards, represents the sound of i in high. It is a first-place sign, and is written thus, $\bigvee buy$; $\bigcap nvy$; $\bigvee ire$.
- 54. The same shaped figure, with the point upwards, represents the two proper diphthongs oi, in boy, and ow, in how. When it occupies the first position, this sign represents the sound oi; thus, $\$ boy; $\$ toy; and when it is in the third place, it represents the sound ow; thus, bough; $\$ cow; hour.
- 55. In placing these signs to the consonantsigns, care must be taken not to incline them according to the position of the consonant-signs; they must always retain the positions which they have in the table, pointing upwards or

downwards, in whatever position the consonantsign may stand or lie, as in the examples.

It will be observed that the second and third places in the table, for the sign pointing upwards, are vacant, and also the second place, for the sign pointing downwards. The reason of this is, that there are other diphthong-sounds in the Alphabet of Nature, not used in the English language, the signs for which might occupy those places.

OF THE NATURE OF THE DIPHTHONGS.

56. Diphthongs are of two kinds—proper and improper. The proper diphthong is a compound or transition vowel-sound, the organs of speech being in the position to utter one simple vowel-sound at the beginning of it, and in a position to utter a different simple vowel-sound at the conclusion of it, so that the two simple sounds are both heard in full, or in part, but often so blended together as to seem to the ear but one sound. Thus, in uttering i in high, the organs, at the commencement of the sound, are in the position to pronounce the third or the fifth simple vowel ah or uh, and, at the end, they are in a position to produce the sound of the first vowel e, but the simple sounds are too much blended to be distinctly heard.

The second proper diphthong (oi) in hoy is composed of the fourth and first full simple vowel-sounds; thus, au-e, which are distinctly heard.

The third proper diphthong (ow in how) is composed of the third and seventh full simple vowel-sounds, ah-oo, somewhat more blended.

The improper diphthongs are defined and explained in a subsequent chapter. (91.)

CHAPTER IV.

OF THE COMBINATION OF THE CONSONANT AND VOWEL-SIGNS.

GENERAL DIRECTIONS FOR WRITING AND READING CONSONANT AND VOWEL-SIGNS IN COMBINATION.

57. In beginning to write, the first thing for the learner to do, is, to analyse the word he wishes to write into its elementary sounds, as directed in the Introduction, page 13. Having done this, the consonant-signs are then to be written before any attention is paid to the vowels. The consonant-signs for a word, must all be written without taking off the pen; the second consonant-sign, commencing where the first one ends, and the third at the end of the second, and so on. This will give the skeleton or frame of the word, to which the vowel-signs are afterwards to be affixed.

For example, there is one consonant in the word eat, |t, which is made first. The sign for the first-place full vowel, of the first group, which is the vowel in the word eat, is then put to it, thus, |eat. In the word act, there are two consonants, which are first written together, thus, |k-t|, and the skeleton, thus formed,

is afterwards vocalized, as adding the vowel-signs to the consonant-signs of a word is called; thus, \neg act. In the word family there are three consonants, which are written one after the other; thus, $f \cdot m \cdot l$, and the word completed, thus, $f \cdot m \cdot l$, and the word completed, thus,

The learner may find a little difficulty in the beginning, in analysing words in this manner, but this is soon overcome, and the process becomes a simultaneous operation with the movement of the pen, so that the writer is no more conscious of effort than in the old method of writing. He would do well to utter aloud the consonant-sounds as he writes their signs. (12.)

- 58. The consonant-signs must be made as directed in the first chapter, viz: the perpendicular and inclined signs from the top, downwards, and the horizontals from left to right. (22, 23.) They must be joined in the manner described above, without lifting the pen until the skeleton is finished.
- 59. In reading, precisely the same order must be observed, that is, they must be taken up or uttered in the order in which they are made in writing them, which order is determined by the above rules. Thus, for example, in reading it is certain that the —

was made first, because the writer could not have begun at the angle without violating the rule which requires that the frame of a word shall be written without taking off the pen, and he could not have begun at the bottom of the without violating the rule, that perpendicular and inclined consonant-signs must be made downwards; the — must, therefore, be read before the

In this word, however, the vowel-sign being placed above the first consonant-sign, which is a horizontal, must be read before it, according to the rule in that case. (36.)

It will sometimes happen that a consonant-sign which seems to be further along than another, in the line of writing, must be read first; thus, / is read ch-t, and will make the words, / and / cheat and chat. Here, also, since both / and | must be made downward, and as, by the other rule, the signs must be joined without taking off the pen, it is obvious that the / was made first, and the | afterwards.

- 60. With reference to the manner of reading vowel-signs, placed to the consonant-signs, it must be strictly observed that each particular consonant-sign, and the vowel-sign or signs placed to it, must be read precisely as they

would be read if they stood entirely by themselves, unconnected with any other consonantsigns; thus, / one of the examples given above, is read chat; which will be clear to the apprehension of the learner, if he adheres strictly to this rule, reading the / (ch.) first, and then taking up | (t,) just as he would do if these last two had no connection with anything else; he will, on the contrary, be liable to great confusion if he looks at the position of the vowelsign relatively to the whole skeleton of the word which it seems to precede, instead of regarding it with sole reference to the particular consonant-sign to which it belongs. By then retaining in mind the rules in chapter II., directing to read from left to right, as respects perpendicular and inclined consonant signs (35), and from above downwards as respects the horizontals (40), the difficulty will entirely disappear.

Care must be taken to distinguish the case of an inclined consonant-sign from that of a horizontal; thus, is have, the vowel-sign being read first; and is gnaw, the vowel-sign being read last, though the learner is quite apt to regard the vowel-sign, in each case, as below the consonant-sign, and, therefore, similar in position; he must, however, remember that,

as respects inclined characters, like the the position of the vowel-signs are not distinguished as above and below, but according as they stand, at the left hand, or at the right hand of the consonant-sign, considered as a whole.

PARTICULAR DIRECTIONS FOR PLACING THE VOWEL-SIGNS TO THE SKELETONS OF WORDS.

61. The rule for placing the vowel-signs to single consonant-signs has been given in the second chapter. (35, 36.) For vocalizing words, which contain two or more consonants, some further explanation is necessary.

When the vowel comes between two consonants it is easily seen that it may be placed to either consonant-sign, and still be read in the same manner; thus, the word pat may be written or both which forms would be read alike. It is desirable to keep the vowel-signs away from the angles or places where the consonant-signs join, especially if they would come inside of the angle, because otherwise it is difficult to tell to which consonant-sign they belong; thus, it cannot be told whether is the word balm or beam. The first and third-place vowel-signs only are liable to this ambiguity. To avoid errors, on this account,

and to secure some other advantages, the following rule and exceptions are established.

62. Rule. — When a vowel, or diphthong, comes between two consonants, the sign for it should be written against the first consonant-sign; thus, beam; bane; time.

1st. Exception. — The third-place vowel-signs must all be written against the second consonant-sign; thus, balm; | tack; | town.

2nd. Exception. — The second-place stopped vowel-signs are also generally written against the second consonant-sign, merely because we have an opportunity, in this case, to distinguish it from the full-place sign, by position, as well as by the size of the dot or dash; thus, is mate; and is met.

3rd. Exception. — The parallel vowel-sign for o may be written to either, as is most convenient; thus, \checkmark or \checkmark roll.

Some deviations from these rules occur in the use of contracted forms of writing, which will be explained hereafter. (76.) So, in words of more than one syllable, it is better to write the vowel-sign to the sign for the consonant to which it seems to belong, in dividing the word into syllables. The full vowel is generally uttered with the first, and the stopped with the second consonant. Thus, is preferable to

booty. This mode of writing must not be employed, however, if it would bring the vowelsign into an acute angle, and thus *charm* must be written \angle and not \angle

63. If two vowels come between two consonants, give one vowel-sign to each consonant-sign; thus, poem.

64. When two vowels begin a word, the *first*, and when they end a word, the *last*, is written a little off from the consonant-sign; thus, '+ iota; 'i-idea.

OF THE PREFIXES COM, CON, AND THE AFFIXES ING. AND INGS.

- 65. The prefix com or con, the most frequent in the language, is written by a light dot at the commencement of a word; thus, commit; contain.
- 66. The participial termination, or affix, inc (the most frequent in the language except tion), is expressed by a final light dot; thus, paying.

The plural, ings, may be written by two small dots; thus, * beings, or it may be written out in full.

The method of writing other prefixes and affixes, will be explained hereafter. (152.)

CHAPTER V.

OF THE ALPHABETICAL AND VOWEL WORD-SIGNS.

TABLE.

EXPLANATION OF THE CONSONANT WORD-SIGNS (OR LOGOGRAMS).

66. By a word-sign is meant a single sign, used to represent an entire word. Each of the consonant-signs of the alphabet (see table), beside its use in spelling words, represents, likewise, the whole of the word which is placed opposite to it in the above table, whenever the sign is written by itself; that is, when it stands unconnected with any other sign. For example, is used, along with other signs, in writing vail, vine, value, evil, and every other word in which the sound of v occurs, but, standing alone, it is

read have, and is then called a word-sign. The words which are thus represented may at all times be written in full, when it is desirable to exhibit their precise pronunciation, and in that case only is the writing strictly phonetic. The use of word-signs is the first step towards contracted phonetic short hand; which, though it is not strict phonography, is still equally legible, since the word-signs are so arranged that they can never be mistaken for anything else, or for each other.

- 67. A word-sign is used for some word of very frequent occurrence, or one which, from its length, is an inconvenient word to write in full, and in which the most prominent sound is that represented by the sign.
- Note. When in any list of word-signs a word is printed with a hyphen, as give-n, the sign will represent either the whole word, or only so much as precedes the hyphen, which is, by itself, another word; thus, is either given or give. Such words being nearly alike in sound, and yet different parts of speech, or otherwise incapable of being taken one for the other, cause no difficulty to the reader.
- 68. The horizontals (except __), inasmuch as they do not fill the space which a line of writing occupies, are made to represent two words, one when placed at the top of the line, thus, __ give, _ me, _ in, _ thing; and another at the bottom of the line, thus, __ together, _ may, _ no, _ language. The word-signs,

for the words printed in italics in the last table, are, therefore, to be placed at the top of the line, or space occupied by the writing. (88).

69. The vowels and compound-signs are also used to some extent as word-signs. The simple vowel and proper diphthong-signs used as such, are exhibited in the following table in this chapter. The use of the compound consonant and vowel-signs, as word-signs, will be explained in the respective chapters in which they are treated of.

Note. — Whenever a word-sign is written above the line, (as in the case of the horizontals just explained) the vowel contained in the word so represented, or if the word has more than one syllable, then the vowel in the accented syllable is a first-place vowel; thus, in give, me, in, and thing, the vowel is the first-place vowel, and in given, the vowel of the first syllable which is accented, is so. The same word-sign, if written on the line, stands for a word which has either a second or third-place vowel in the same situation; thus, may, no, and come, have second-place vowels, and together has a second, and language a third-place vowel in the accented syllable.

If any other word has the same pronunciation as that for which the word-sign is used, the word-sign will represent both, thus, \smile signifying no will also represent know. (71.)

TABLE.

SIMPLE-VOWEL WORD-SIGNS.

Full.

1st place, the all or 2nd place, a to who

Stopped.

1st place, him of on 2nd place, 2rd place, and, an but should

Proper Diphthong Word-Signs.

1st place, I I 2nd place, 3rd place, A how

EXPLANATION OF THE SIMPLE-VOWEL AND PROPER DIPHTHONG WORD-SIGNS.

70. It will be remembered that the vowelsigns ordinarily have three places; but when used as word-signs, they have but two, as it is difficult to distinguish three positions when they stand alone. Hence, when the second-place

vowel-sign is used for a word-sign, it is brought down to the line, and takes the third-place, as > but, in the table above.

When the second-place vowel-sign is thus employed, the third-place vowel-sign is not used as a word-sign, and when the third is used, the second is not.

When a second-place vowel-sign is written on the line, and it is necessary to write a word consisting of a third-place vowel, the vowel-sign for it is placed below the line. The only instance of this kind, in the English language, is the interjection, ah! which must be written as a large dot below the line; thus, The interjection, eh! which is now sometimes met with in light literature, requires some mode of representation, and may be written in the same manner, by a light dot below the line, though it is only a second-place vowel.

71. When, also, as sometimes happens, the whole word has the same sound as a vowel or diphthong, it is written by the corresponding vowel or diphthong-sign, whether that sign is used as a word-sign for some other word or not; thus, \cdot (brought down to the line in the table above, according to the preceding rule,) is written for the article a, and the word aye, and f for the words I and eye only, while f is written

for awe, though it is at the same time a wordsign for all. So, when a vowel or diphthongsign is a word-sign for a word sounded differently from itself, it will be written for all the words having the same sound. In this manner is written for to, too, and two.

The vowel-signs for the vowels, au, uh, and oo, it will be seen, lean to the left, as word-signs for one word, and to the right as word-signs for another word.

Several other word-signs are made by simply placing the breathing to the vowel and diphthong word-signs; these are •• he; ... hay; haw; • ho! hoe; .. hand; • high; ^ hoy.

CHAPTER VI.

OF THE DIFFERENT FORMS OF THE CONSONANT-SIGNS FOR S AND Z, AND OF THE MODE OF WRITING THEM.

TABLE.

) 8 0 2

O sis, or ses. O sis or zi

EXPLANATION OF THE FORMS FOR S AND Z

72. The s and z are consonant elements of very frequent recurrence, and it has been found convenient to adopt different methods of representing them under different circumstances.

The first or full forms are given in the alphabet, and at the head of the table above; the second forms are made by a small circle o one side of which is thickened a little for z; o as shown in the table above.

The circle is extremely useful because it helps very much to compress the writing into a small space, and because it offers the greatest facility for joining the other consonant-signs.

ON THE MODE OF JOINING THE CIRCLE TO THE CONSONANT-SIGNS OF THE ALPHABET.

- 73. The sound s or z, for which the circle is used, may come, of course, either before or after that of the alphabetical-sign to which the circle is joined, as sp or ps, sm or ms, &c. In the first case the circle is made first and joined at the beginning, the hand turning the circle and then tracing the straight line or the curved alphabetical-sign, without any break or interruption between them; thus, sp; sf; sch; sch; sch; in the second case, the circle is made last and joined at the end, by continuing the movement of the pen, after the alphabetical sign is completed; thus, sp; sch; sch
- 74. With respect to the side of the sign upon which the circle is made, three different cases must be distinguished.
- I. That of the perpendicular and inclined straight-line-signs, when the circle is placed on the right hand side: they are the following; $\$ s-p; $\$ s-b; $\$ s-t; $\$ s-d; $\$ s-ch; $\$ s-j; and so with the s or z following; thus, $\$ p-s; (or p-z); $\$ b-s; $\$ t-s; $\$ d-s; $\$ ch-s; and $\$ j-s.
- IL That of the horizontal straight-line-signs: here the circle is placed upon the upper side;

thus, a s-k; a s-g; and with the s or z following, a s-k s; and a s-g s, (or z.)

III. That of the curved-signs: with these the circle is always placed on the inner or concave side of the sign; thus, & s-f; & s-v; s-m; (s-th; (s-th;) or) s-s;) s-z; (s-l;) s-r; ~ s-n; ~ s-sh; ~ s-sh; ~ s-sh; ~ s-ng; and with the s or z following; thus, & f-s; & v-s, &c.

75. When the circle comes between two consonant-signs it should be turned in the shortest way; thus, b-st; ch-st; k-st; not which require the hand to move round a considerably greater distance; but if one of the other consonant characters is a curve, the circle must always be carried round upon the inner side of it; thus, m-st; r-st; and l-st; not mother which would be awkward and difficult figures to make. Coming between other signs, the circle need not be formed with great accuracy.

METHODS OF WRITING THE VOWEL-SIGNS WITH THE DIFFERENT CONSONANT-SIGNS FOR S AND Z.

76. Six cases may be distinguished in which the two different methods of writing s and z, make it necessary to give particular directions

for placing the vowel-signs; three of them, in which the s or z is heard before the other consonant, and three in which the other consonant is heard first, as follows:—

I. The first case is when a vowel comes before an s or z, which is the first consonant in the word; thus, ') ease; ') east; haste. Here the long sign must be written for the s or z, because we are compelled to place the vowel-sign to it, and the circle would not furnish the three positions necessary for distinguishing the local value of the dot and dash.

II. The second case is, when the vowel precedes two consonants, as before, the *last* of which is s or z; thus, heaps; dodds; aims; here the circle is used, the vowel-sign being placed before the other sign.

III. The third case is that of a vowel coming between two consonants, the first of which is s or z; thus, 's seat; seek; so seem; seen; seen; seek; so seem; ln this case the circle is used, and the vowel-sign is placed to the other consonant-sign, just as it would be if that sign stood without the circle. The circle is then read first, though it seems to come after the vowel-sign; thus, 's read eat, but if the circle is placed at the head of the long consonant, thus, 's the circle reads first,

and the word becomes *seat*. The attention of the student is specially directed to this case.

IV. The fourth case is, when a vowel comes between two consonants, as in the preceding case, the last of the two consonants being s or z; thus, pass; boast; moose; froast; face.

Here the circle is used, and the vowel-sign is placed after the consonant-sign; the circle then seems to come before it, but must be read last. In this, and the preceding case, the general rule for placing the vowel-signs is sacrificed to the great convenience of the circle. (62).

V. The fifth case is that of the vowel coming after two consonants, of which s or z is the first; thus, f stay; \smile snow. Here the circle is used, the vowel-sign coming after the long consonant-sign.

VI. The sixth case is that of a vowel following an s or z, which is the last or only consonant in a word; thus, busy; rosy; sea. Here the long sign must be used, for the same reason as in the first case, that is, because the vowel-sign must be placed to it, which cannot be done to the circle.

Words with no other consonant in them, but s or z, and a vowel both before and after it, come under both the first and sixth rules, that

is, the long sign) is used; thus ') easy;) essay.

There is one other case of rare occur-77. rence, which needs, however, to be explained, viz.: — when two distinct vowel-sounds come between two consonants, one of which is s or z, as in the words Zoology, Zoar, Boas, Saying, Here either the long sign or the circle may be used; if the long sign is chosen, the vowels are written as in other cases, one to each consonant-sign; thus, \(\) Zoar; \(\) Boas; Saying. (63.) If the circle is preferred, both vowels must be placed to the other sign, and, in that case, if the circle is at the beginning, the first vowel, and, if at the end, the second vowelsign must be placed a little further off than usual, while the other vowel undergoes no change of position; thus, No Zoar; No Boas.

NOTE. — The sounds represented in heterography, by the letter z, are written, in Phonography, as ks or gz; thus, the word exercise is x and exact is x

OF THE CIRCLE AS A WORD-SIGN.

The z circle is used as a word-sign for is, placed above the line; thus, o; and for as, placed on the line; thus, o; with the aspirate before it, it reads his, above; thus, o; and has,

on the line; thus, ... The aspirate may be omitted without any danger of ambiguity.

The circle, when it is not joined to another consonant-sign, is made by carrying the pen around in the direction in which the hands of a clock move; this brings the heavy part of the z circle on the right hand side.

OF THE SAND Z SOUNDS REPEATED.

79. When the sound of s or z is repeated in a word, with a vowel sound coming between them, as in sauce, (the c here sounds like s,) cease, necessary, Moses, pieces, &c., there are, of course, two modes of joining the circle to the regular form of the s or z, which are equivalent to each other; thus, for example,) and) will both read s-s. The writer, therefore, has a choice, according as one or the other mode is most convenient, but it will be well to keep the form) for s-s, and) for s-z. The former may then be vocalized into sauce, cease, Swiss, &c., and the latter into says, size, sues, &c.

The regular mode of writing the vowel-sign, to read between these two consonants, is the same as it is when the circle is joined to any other sign of the alphabet, as has been explained in the former part of this chapter. (76.)

But, besides this, it is often found very convenient, in rapid writing, when the vowel coming between these two consonant-sounds is merely the first or second stopped vowel (i or i) to represent the entire syllable, sis, ses, cis or ces, by the circle alone, made twice the usual size; thus, if thesis; in pieces; in Moses.

These syllables have a great variety of pronunciation in different words, as sis, siz, zis, ziz, ses, sez, zes, zez, but the difference in their sound is so slight that no difficulty, in reading, results from representing them all by one sign.

If one of the sounds in the combination is that of z, one side of the circle, as is most convenient in writing, may be made heavy, to indicate it.

CHAPTER VIL

PECULIAR FORMS AND METHODS OF WRITING SOME OF THE CONSONANT AND VOWEL-SIGNS, WITH GENERAL DIRECTIONS FOR PROMOTING THE ELEGANCE OF THE HAND-WRITING.

OF CONSONANT-SIGNS WHICH ARE MADE UPWARDS.

- 81. To prevent words from running too far below the line, as well as to give some variety of forms, it is provided that several signs, inclined to the left, (the direction in which the line of writing proceeds) may, when convenience requires it, be made by striking them upwards, instead of downwards, as follows:
- 81. There is a second form for the sign of the very common sound r, which is a straight line leaning to the right, thus /. This sign is the same as that which occurs in the alphabet for ch; but this form of the r is always made upwards, and the ch always downwards, and the direction in which the sign is made is shown by its connection with other consonant-signs; thus, / is ch-t, and / is r-t, and / is p-ch, and / is p-ch, and / is p-ch, and / in the other, at the bottom. The joining takes place as usual

at the end of the first sign, thus producing a marked difference in the skeletons of the words, by which means the sign for ch is readily distinguished from that for r. When the sign / stands alone, or with the circle only joined to it, it will always be read as ch; thus, / each; / chew; / cheese; / such, &c.

- 82. These considerations as to the manner of reading this sign, will direct the learner as to the form which it is proper to use for the r, in writing. In most instances there may be a choice of signs, but if there is no other alphabetic or long consonant-sign to be used in connection with the sign for r, the up-stroke cannot of course be used.
- 83. The (l;) sh; and] zh, are made upwards or downwards at convenience, without any change of form, and the direction in which they were made will be known, in reading, as in the other case, by the connection with other consonant-signs; thus, (is l-ng, the being made downwards; and is l-ng, the being made upwards. So and sh-p; and r-zh (in the word rouge). It is never necessary to make the heavy stroke upwards, and it will be found inconvenient, except when writing with a pencil.
 - 84. When standing alone, or with the circle

DIRECTIONS FOR PLACING THE VOWEL-SIGNS TO THE CONSONANT-SIGNS DESCRIBED ABOVE.

85. The places of the vowel-signs are reckoned from the point at which we commence to write the consonant-sign. This is the general rule applicable to all the signs. It follows, therefore, as respects those consonant-signs which are struck upwards, that the first-place vowel-signs are written at the bottom (which is the beginning) of the sign, the second-place at the middle, and the third-place at the top of the consonant-sign. In other words, the vowelpoints proceed in the direction in which the hand moves in making the consonant-signs; thus \bigwedge is right; \bigvee is poor; \bigvee is far, &c. This method of placing the vowel-sign requires particular attention, as the same vowel-sign may appear at the opposite extremities of the consonant-sign, according as it is struck upwards or downwards, thus, and are two different methods of writing the word, long.

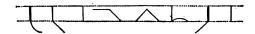
86. When the / stands alone, or with the circle only joined to it, as it is understood in that case to be made upwards (84), the vowel-signs are numbered from the bottom, upwards; while with \(\sigma \) and \(\sigma \) under the same circumstances, they are numbered downwards (84); thus, \(\sigma \) is \(\lambda \) is \(\sigma \) is \(\lambda \) is \(\sigma \) is \(\sigma

OF THE SECOND FORM OF THE SIGN FOR THE BREATHING.

87. The breathing, h, is represented, as before explained, by a small dot placed before a vowel sign, (52); but, when more convenient, which is the case especially when there is no other consonant in the word, it may be written by the sign (; thus, (hay; (Hugh; Aha; (Nohio. This sign for the breathing is seldom required. It is made according to the general rule for perpendicular signs, from the top downwards, and the vowel-signs are numbered accordingly.

RULES FOR ADJUSTING THE POSITION OF THE CON-SONANT-SIGNS TO THE LINE OF WRITING.

88. The line of writing is supposed to occupy, upon the paper, a space equal to the length of the signs; for example,



but by joining the different consonant-signs together, some of them will run below or above the space occupied by the line of writing to some extent, and the following directions should be observed to keep the writing in its proper place and contribute to the elegance of its appearance. The first perpendicular or inclined consonant-sign, which occurs in a word, should have its lower end upon the lower line of the space, and the position of the following signs will be determined by it. The rule is the same whether the sign is struck downwards or upwards; thus, [top; L deck;] cut; > peach; \(\sim \) rope, &c. The perpendicular signs will then reach from the upper to the lower line of the space, but the inclined signs being of the same length as the perpendicular ones, will, of course, not reach to the upper line. One exception, however, must be made to this last rule. When one of the upstroke-signs / (or) is followed by a perpendicular sign, the eye is better pleased by lengthening the up-stroke so as to strike the upper line of the space, preserving, however, the same angle or curve; thus, / () are better than / () for the words right and light.

- 89. It should be observed that when the upstroke r or the l struck upwards, is followed by the sign for ch, j, sh, or zh, the signs thus brought together would properly have the same inclination. To avoid an interference between the signs which would result from this circumstance, the up-strokes must be a little more than usually inclined; thus, \sqrt{reach} ; \sqrt{ridge} ; \sqrt{lash} .
- 90. It will be observed that the horizontals do not at all fill the space of the writing. Advantage may be taken of this circumstance when they are joined to no other consonant-sign, or merely to the circle, s or z, or to another horizontal, to determine by their position the nature of the vowel which belongs to the word; thus, if it is a first-place vowel, the horizontal-sign should be written at the top of the space, and, if it is a second or third-place vowel, at the bottom; thus key; ache; mass; mine, &c. It would be difficult to distinguish

three positions with the horizontals, and, therefore, the sign with a second-place vowel is also brought down to the line. By this means, if at any time the writer should omit the vowel-sign, the reader would be aided by the position of the consonant-sign. This method of placing the horizontals is regarded as pertaining rather to the elegance of writing, than as essential to correctness, but, for the advantage which it offers, as well as to preserve uniformity, it is better that the learner should at once form the habit of observing it.

CHAPTER VIII.

OF THE FIRST SERIES OF IMPROPER DIPHTHONGS; AND OF THE TRIPHTHONGS.

TABLE.

FIRST GROUP.			SECOND GROUP.		
	Full.	Stopped.		Full.	Stopped.
1st place,	c	c	1st place,	•	>
2nd place,	C	c	2nd place,	> 3	>
3rd place,	c	c	3rd place,	>	>

IMPROPER TRIPHTHONGS.

1st place, 1 2nd place, 3rd place, 7

EXPLANATION OF THE IMPROPER DIPHTHONGS AND DIPHTHONG-SIGNS OF THE FIRST SERIES.

91. There are two series of improper diphthongs. Those of the first series are precisely those combinations of sounds which are commonly represented by prefixing the letter w to the simple vowels. The full diphthongs of this series are, therefore, we, wa, wah, wau, wuh, wo, woo; as in the words, we, way, waft,

wall, work, woke, wooed; and the stopped, are we, wa, wah, wau, wuh, woo; as in the words wit, wet, wag, was, one, wood.

92. The signs by which the improper diphthongs are represented, are small half circles, occupying the first, second, and third places, opposite the consonant-signs, like the simple vowel-signs.

For the first series, the half circles are made by dividing the circle perpendicularly. The first, or left-hand half of the circle, (corresponding to the mark made at the beginning of a parenthesis) is then used in the three positions, for the first group of this series of compound vowels, heavy for the full; thus, weep; wast; and the same figure made with a lighter or thinner line for the corresponding stopped sounds; thus, will; wed; wag.

The second half of the circle, (corresponding to the line which is made at the end of a parenthesis) is used for the second group of the same series of compound vowels, heavy for the full; thus, wall; work; work; wooed; and lighter for the stopped vowels corresponding; thus, was; one; wood. This sign is doubled and written at the second place for wo; thus, woke; woke; woes.

These figures should always be made as small as they can be formed conveniently with a pen or pencil, and so much curved as to be half circles, instead of quarter circles like the consonant-signs. They, as well as the proper diphthong-signs, must always retain their own position, without regard to the inclination of the consonant-signs; thus, we write \(\sim weep; \)

The signs for the second series will be described in the following chapter.

93. It will be observed that the signs placed in the alphabet, for these ambiguous consonants have a local value, and are not merely equivalent to w and y, but represent we, wa, wah, ye, ya, yah, &c., according to the position which they occupy.

EXPLANATION OF THE IMPROPER TRIPHTHONGS AND TRIPHTHONG-SIGNS.

- 94. There are two triphthongs in our language, both of which are improper triphthongs. They are the combinations of sounds which may be represented by placing the w before the proper diphthongs i and ou. (53.)
- 95. The signs employed in phonography for these compound sounds, are formed by divid-

ing a small square, by a diagonal line inclined from left to right; thus, \(\sigma\) The first half of the square so divided, is then used for the first of the compound sounds, and placed in the first position opposite the consonant-sign; thus, \(\sigma\) wind; and the second half is used for the second of the two sounds, and placed at the third position; thus, \(\sigma\) wound.

OF THE BREATHING BEFORE THE FIRST SERIES OF IMPROPER DIPHTHONGS AND THE TRIPHTHONGS.

96. There is a large class of words in our language which commence by a combination of sounds, represented in the old orthography by wh, as when, where, which, why, while, &c. This mode of writing is a complete inversion of the order in which the sounds are heard, the breathing (h) being first uttered, and the w afterwards; thus, hoo-ere, hoo-en, hoo-ich, hoo-i, hoo-ile. These sounds are therefore represented in phonography, by placing the small dot before the diphthong or triphthong-sign; thus, where; when; where; when, &c.

IMPROPER DIPHTHONG-SIGNS OF THE FIRST SERIES AND THE TRIPHTHONG-SIGNS USED AS WORD-SIGNS.

DIPHTHONG-SIGNS.

FIRST GROUP.

Full.	Stopped.	
1st place, we.	with.	
2nd place, 3rd place, were; where.		

SECOND GROUP.

1st place,		> what.
2nd place,		
3rd place,	•	> would

TRIPHTHONG-SIGNS.

1st place, hy why 2nd place, 3rd place,

The second-place diphthong-signs are, like the simple vowel-signs, brought down to the third-place, when used as word-signs. The word-signs formed by prefixing the breathing, are inserted in the tables.

CHAPTER IX.

OF THE SECOND SERIES OF IMPROPER DIPH-THONGS AND DIPHTHONG-SIGNS.

TABLE.

FIRST	GROUP.		SECOND GROUP.		
	Full.	Stopped.		Full.	Stopped.
1st place.	v	ا ب	1st place.	^	^
1st place, 2nd place,		U	1st place, 2nd place,	^ M	^
3rd place,	U	·	3rd place,	^	^

EXPLANATION OF THE IMPROPER DIPHTHONGS, AND DIPHTHONG-SIGNS OF THE SECOND SERIES.

- 97. The second series of improper diphthongs, are those sounds which are represented by prefixing the letter y to the simple vowels. The full diphthongs of this series are, therefore, ye, ya, yah, yau, yuh, yo, yoo,* as in the words, ye, yea, yard, yawn, yearn, yoke, you; and the stopped are yĕ, yä, yäh, yäu, yüh, yöo, as in the words yis (yes), yet, yam, yon, young. The last stopped diphthong of the series, is not used in the English language.
- * The last full diphthong of the series, is the compound-sound represented by u in universe, and is likewise the vowel-sound heard in few, community, &c., in which words the weak consonant-sound of y should be distinctly uttered, which is not always the case in America.

To furnish signs for these sounds the circle is divided horizontally; thus, — The lower half of the circle is then used for the first group; thus, full, \(\sqrt{yield}; \sqrt{Yale}; \sqrt{yard}; \text{stopped}, \(\sqrt{yis} \) yis (yes); \(\sqrt{yet}; \sqrt{yam}. \)

The upper half of the circle is used for the second group, doubling it for yo; thus, full, yawn; yearn; youk; youth; stopped, you; young. The stopped sounds corresponding to yo and yoo do not occur in the English language.

The last of the full series, (yoo) is the long sound of u heard in youth, your, union, and also in few, tune, community, &c.

The sign for it is a word-sign for the word your, and is the only word-sign of this series.

OF THE IMPROPER DIPHTHONGS AND TRIPHTHONGS.

99. Improper diphthongs, like proper diphthongs, are likewise a species of transition sounds, beginning with one vowel and ending with another; but with this peculiarity, that, while the organs are passing from one position to the other, they come so near a contact as to give rise to a weak consonant-sound which differs from any other of the consonant elements.

In this manner two new consonants are generated, which are represented in the printing alphabet by the W and Y. They are the weakest of the consonant-sounds, except the breathing, and are classed along with it under the name of ambigues (see alphabet, p. 18). There are two classes of these improper diphthongs. They are produced by pre-

fixing the seventh simple vowel (00), and the first simple vowel (e) to any of the simple vowels; thus, if one attempts to say 00-a, 00-ah, &c., and pronounces them with some rapidity for several times in succession, he will say wa, wah, &c. In the same manner e-a, e-ah, will produce ya, yah. There are three methods by which we might represent the improper diphthongs; I. By writing both the vowels thus, 00-a, 00-ah, &c.; II. By representing the first simple vowel by the sign for the consonant (W or Y), into which it is partially converted; this we do in printing; III. By employing a single sign for the entire diphthong. This last method is adopted in Phonography, on account of its conciseness.

100. The learner must guard against supposing that there are two new sets of vowels, distinct from the simple vowels, to be learned. By merely prefixing the seventh vowel oo to the whole of the first and second order of the simple vowels full and stopped, he will have the first series of improper diphthongs, full and stopped, and by prefixing the first vowel e in the same manner, he will have the second series. The first series of improper diphthongs may be analysed as follows:—

FIRST GROUP.

Full.			Stoppe	d.		
·00-е еqт	iivalent	to we.	o o- ĕ €	equivalent t	o wĕ. (91	.)
00-a	"	wa.	00-й	- 66	wă.`	•
oo-ah	"	wah.	oo-ăh	. "	wăh.	
		SECOND	GROUP.			
Full.			Stoppe			
oo-au eq	uivalen	t to wau.	00 -a ŭ	equivalent	to wău.	
oo-uh	"	wuh.	oo-ŭh	- «	$woldsymbol{u}h.$	
00-0	"	wo.				
00-00	66	anno	രാ-റ്റ	"	ขกถัก.	

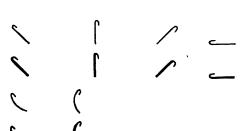
The second series may be analysed in the same manner into e-e, e-a, e-ah, &c., equivalent to ye, ya, yah, &c.

101. The triphthongs are composed of the seventh vowel oo, followed by i and ou, which are proper diphthongs; thus, oo-i, oo-ou, are equivalent to wi, wou.

CHAPTER X.

OF THE L-HOOK SERIES OF SIGNS.

TABLE.



EXPLANATION OF THE DOUBLE CONSONANTS AND OF THE L-HOOK.

102. The two liquids, l and r, are found to unite very intimately with the other consonants in a great number of words, forming a kind of double sound, pronounced by a single effort of the voice; thus, in the words play and pray, the two sounds, represented by p and l, and by p and r, seem to become actually one.

103. The *l-hook*, though made at the beginning of the alphabetical sign, is not read *before* it, like the circle s, made at the same place, but after it, that is to say, the consonant-sign to which it is affixed is always read first, as pl, kl, ml, &c. Hence the combinations lp, lk, lm, ln, &c., must be written in full; thus, \(\sum_{\infty} \sum_{\infty} \limb{like}; \sum_{\infty} \limb{limb}; \(\sum_{\infty} \limb{limb}; \sum_{\infty} \limb{limb}; \) well fixed in the mind of the learner.

104. The consonant-signs,)) \mathcal{J} and \mathcal{L} never take the \mathcal{L} hook, either because there is no occasion for such combinations of sounds, or else, because there are already provided other methods of representing them sufficiently contracted.

Sl and zl are written thus, 6 as in 6 seal;

zeal (84), or in combination, they may be written thus r as in $r \neq excel$, (83) that is, instead of putting an l-hook to the long r s or r z, the circle is placed to the full sign for r is written in full; thus r or else by special forms which are explained in a following chapter. Shl and zhl have also peculiar forms which are not yet introduced. (115.)

OF THE MODE OF PLACING THE VOWEL-SIGNS TO THE L-HOOK SERIES OF SIGNS.

105. The alphabetic-sign, with the hook added to it, should be regarded as one sign, and the two consonants represented by it, should, in analysing words, be named as one; that is, the sounds represented by the signs of the *l*-hook series should be pronounced as the final syllables of the words, apple (pl), bible (bl), title (tl), meddle (dl), whiffle (fl), evil (vl), &c.

In writing, therefore, if a vowel precedes this double consonant-sound, the vowel-sign must be placed before the double consonant-sign; thus, \ apple; \ evil; \ evil; \ eagle, &c., and if the vowel follows, the vowel-sign must be placed after; thus, \ play; \ flying; \ clay, &c., or a vowel-sign may be placed on both sides; thus, \ only, the two consonants still being uttered together.

But if a vowel has to be inserted between two consonants, the last of which is l, each consonant must be written by its own proper alphabetic sign; thus, peal; fail; mail; and, in analysing, each element must then be named separately.

Even when the two consonant sounds are uttered as one, they nevertheless form a syllable at the end of a word, and we hear between them a very slight quantity of the natural vowel, No. 5, the sign for which is omitted when the hook is used. (50.) But if great accuracy is desired, in denoting the elements of the word, both consonants may be represented by their own signs, and the fifth full-vowel-sign inserted; thus, \checkmark apple; \checkmark evil, &c.

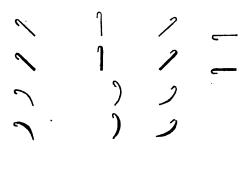
SIGNS OF THE L-HOOK SERIES USED AS WORD-SIGNS.

The signs of this series, used as word-signs, are public; above the line, for knowledge and acknowledge; and on the line for only; and full.

CHAPTER XL

OF THE R HOOK SERIES OF SIGNS.

TABLE.



EXPLANATION OF THE R-HOOK.

106. The second liquid, r, when it follows another consonant, is likewise represented by a small hook at the beginning of the alphabetical sign, by which the other consonant is signified, but upon the side opposite that upon which the l-hook is placed; thus, pr; r tr; r chr; r tr; r

The combination rr is not required. Sr and zr are written thus γ γ as in the words γ sire; γ sour; γ sorry.

OF THE METHOD OF WRITING THE VOWEL-SIGNS TO THE R-HOOK SERIES OF CONSONANT-SIGNS.

107. The method of writing the vowel-signs to this series of signs, is in all respects the same as that described in the preceding chapter, with reference to the *l*-hook, and the same observations are applicable. (105.) When uttered as one, the consonants of this series should be named as the last syllables of the words, paper (pr), robber (br), letter (tr), reader (dr), &c.

ON JOINING THE L OR R-HOOK-SIGNS TO A PRECEDING CONSONANT-SIGN.

108. The l or r-hook-signs are readily joined to a preceding consonant-sign, without raising the pen, as reply; surprise; noble; l tickle, &c. In a few instances the hook may not be very perfect, as redle; l degree, but the offset made by the pen renders it equally obvious. It must not in any case have the appearance of being mended on, as redle &c.

When the circle comes between a preceding consonant-sign, and a hook-sign, it must be turned so as to accommodate it to the formation of the hook; thus, express; master; physical; explain; describe.

In some cases of this kind it is more distinct to write the two single signs at length, instead of the hook-sign; thus, the describe; explain.

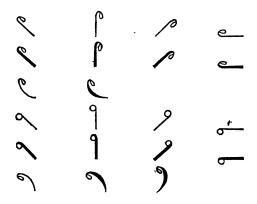
SIGNS OF THE R-HOOK SERIES USED AS WORD-SIGNS.

109. The signs of this series used as word-signs, are \(\) for principle and principal; \(\) for member and remember; \(\) for from; \(\) for very; \(\) above the line for remark; and \(\) on the line for more; \(\) for truth; \(\) for there and their; and \(\) above the line for nor; and \(\) for pleasure.

CHAPTER XII.

OF THE L AND R-HOOK SERIES OF SIGNS PRE-CEDED BY S.

TABLE.



EXPLANATION OF THE COMBINATIONS.

110. The circle is prefixed to the double consonant-signs, as well as to the single. It is joined to the l-hook series by making it rather smaller than usual, and including it within the hook; thus, $\$ $spl; \$ $skl; \$ svl; in this case the circle is made first, and the hand, in turning it, is carried round so as to form the hook before making the long sign, which is struck last.

111. The s or z is prefixed to the r-hook series of consonants in rather a different manner. The circle for s or z, and the l-hook, occupy the same side of the alphabetical sign; thus % sp; $\$ pl; and hence, when both the hook and circle are needed, pains must be taken, as in the first part of the above table, to make them both obvious; but as the circle for the simple s or z is never placed upon the side of an r-hook, advantage is taken of this circumstance to represent both the circle and hook by writing the circle alone, the position which it occupies indicating the double office which it performs; thus \sim is spr; % = str; as contracted forms for \ \ \ \ &c. But, with the curves, the contraction cannot take place; thus, we must write \(\gamma \) for suffer, &c.

RULES FOR PLACING THE VOWEL-SIGNS TO THE L AND R-HOOK SIGNS PRECEDED BY THE CIRCLE.

112. The learner will notice that in these combinations the s sound is heard first, and the liquid l or r last of the three consonant-sounds which are thus united. Inasmuch as the s sound is first heard, it follows that no vowel-sound can be so written as to read before one of these signs (because a vowel cannot be writ-

ten to the circle); hence, if a word begins with a vowel, followed by one of these combinations of sounds, the long s must be used, thus, and oysters; hist'ry.

bIf a vowel comes after the s, and before the pl, pr, &c., the circle is then used as directed above, and the vowel written before, that is, on the left hand of the perpendicular and inclined consonant-signs, and above the horizontals; thus, is read side, and is read side. In the same manner we may compare is saddle, is sadder, and is sadder, and is saide. Simms; is similar, is simmer, and is Simms; is civil is suffer, and is safe, &c.

113. If the vowel comes after all the three consonant-sounds, it must be written after; that is, to the right hand, or below the sign; thus, splice, spry, just as is spice, and is spy; compare in the same manner, stream, steam; stream, stream, scheme; and the like.

When no vowel comes between the consonants, s-pl, s-pr, s-tl, s-tr, &c., these combinate read as one, in analysing words, like the pl, pr, &c.

CHAPTER XIII.

PECULIAR COMPOUND CONSONANT-SIGNS.

- 114. The up-stroke r takes an l-hook upon the left side; thus, \checkmark which may appear, at first, to be contrary to analogy; but if this form of the r is regarded as the $_k$, with the end elevated to an angle of forty-five degrees, the arrangement of the hook will be seen to be correct; thus, \checkmark pearl; \lnot curl; \checkmark furl, &c. This form, like the simple up-stroke, can only be used in combination; hence, \checkmark reel, \checkmark rally, and similar words must be written at length.
- by the hook to the end of the preceding consonant-sign, and are struck up; thus, partial; essential, &c. As they have this peculiarity, they were not inserted in the table of the l-hook characters, but reserved for a special explanation. The character for zhl being a heavy mark, and struck up, cannot be easily made with a pen; but this combination is of very rare occurrence, and it may be written in full. We have an instance of it in the word ambrosial.
- 116. There are two signs for the combination lr, one or the other of which is used, according as it is the more convenient form for

117. The second sign for the combination is the l made heavy, which is, therefore, generally struck down; thus, as in r sailor; r miller.

The sign for m, made heavy, is used for mp; as in mp; mp;

118. The alphabetic sign for r, made heavy, makes a second sign for vr, this form not being required for any other purpose; in other words, the hook for the vr character may omitted, as in ver; instead of ver; ver; instead of ver

THE PECULIAR COMPOUND CONSONANT-SIGNS USED
AS WORD-SIGNS.

119. The $\frown lr$ is used as a word-sign for already.

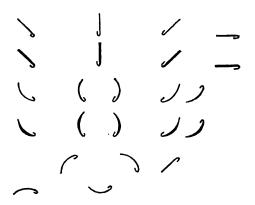
The \(\cap mp\) above the line, is used as a word-sign for important and importance, and \(\sigma\) on the line, for improve, and improvement.

The γ vr is a word-sign for every.

CHAPTER XIV.

OF TERMINATIONAL CHANGES AND PARTICULARLY OF THE N-HOOK.





OF THE ADDITIONS AND CHANGES WHICH OCCUR AT THE END OF THE CONSONANT-SIGNS.

120. The method has been explained in the preceding chapters of joining the simple circle for s and z to the alphabetic-signs; that of using the hooks for the liquids l and r; and, finally, that of joining the circle to the double signs, formed by the addition of the hooks.

All of these additions are made at the beginning of the consonant-signs. Other additions

and changes are made, for other purposes, at the end, which will be explained in this and the following chapters. The consonant-sounds. which are signified by hooks or changes made at, the end of the alphabetic-sign, are, like the s or z, signified by the circle, (72) distinct and single consonants; that is, they do not blend in the utterance, like the liquids l and r, with the preceding consonant, so as to form a double consonant. (102.) These may, therefore, just as properly be written by their own separate signs. When represented in the contracted methods which are about to be explained, it is merely for the sake of brevity and compactness in writing. Hence, they separate, in reading, like the circle, as will be shown, whenever the vowel comes between them and the preceding single The rules for placing or double consonant. and reading the vowel-signs, along with consonant-signs thus modified, will be more fully stated after the several kinds of final changes have been specifically described. (141.)

OF THE N-HOOK.

121. This hook is placed at the end of the alphabetic-signs upon the side which the r-hook occupies at the beginning, as respects the straight-

line-signs; but always upon the inner or concave side of the curves; thus, p-n, j-t-n, k-n, and f-n, r-n, l-n, m-n, n-n, &c.

An s or z is then added at the end of words only, (for the plural of nouns, &c.), by merely carrying the hook round, so as to complete a circle upon the straight signs; thus, p.ns, as in the word pence; p.nz, as in pains; J d.ns, as in dense; J d.nz, as in dense, and turning or folding it within the circle, upon the curves, thus, m.nz, as in man's. The circle may be made a little heavy for z.

The combinations, sh-n and z-hn, have 122. each two forms; thus, I or I according as the sign is struck up or down. The first forms are the same as those for sh-l, and zh-l, (115); and the second the same as those for sh-r, and zh-r. (106.) They are easily distinguished, however, as the sh-l form is joined to the preceding sign by the hook, and then struck upwards; and the sh-r is also joined by the hook, and then struck downwards: while the sh-n form, whether struck upwards or downwards is always joined by the body of the sign, and the hook made last; thus, compare,) , sesential, censure, with - or - ascension.

The sh-n and zh-n forms can only be struck upwards when preceded by a long consonant-

sign, as they could not otherwise be distinguished from sh-r and zh-r. Struck downwards, they may stand alone, thus, \mathcal{I} shine; \mathcal{I} shown, &c., because the sh-l and zh-l forms are never used, except when preceded by a long consonant-sign.

- 123. The $\[\] ln$, and $\[\] rn$, can only be used when in conjunction with other long signs, as they would be taken for lr, chl. The other forms must be used in such words as $\[\] line$; $\[\] rain$, &c.
- 124. The combinations of the *n*-hook series partake of the double consonant character, when no vowel intervenes, and they may then be named like the last syllables of the words tympan (pn), turban (bn), martin (tn), sudden (dn), &c.

The final ns circle may, as a convenient name, be called *ence* or *enz*. The double circle, sis or siz, is then called *ensis*, and is read thus, tenses, expenses.

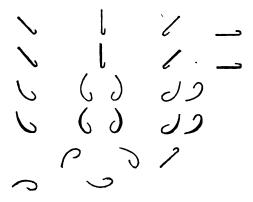
SIGNS OF THE N-HOOK SERIES USED AS WORD-SIGNS.

125. The sign \searrow is used for upon; \searrow for been; \searrow for phonography and phonographic; \searrow above the line, for opinion; \swarrow for general; \swarrow for occasion; \searrow for done; \curvearrowright for alone; and \longrightarrow on the line for can.

CHAPTER XV.

OF THE SHN-HOOK.

TABLE.



EXPLANATION OF THE SHN-HOOK.

126. There still remains one position only in which the hook may, be placed to the alphabetical-signs which has not yet been employed. This is at the end of the straight-line-signs, upon the side which the *l-hook* occupies at the beginning. It is found convenient to use the hook in this position for the combination of sounds, *shn*, or *zhn*, which are heard in those very frequent terminations of the English lan-

guage, tion, sion, cian; thus, \ p-shn; \ d-shn; \ \ \ s-shn, &c.

A final s or z is then added by turning the circle within the hook; thus, \searrow p-shns; d-shns; \longrightarrow k-shns.

128. Inasmuch as the hook can only be placed on the inner or concave side of the curves, and as this position is already occupied by the *n-hook*, the termination shn or zhn is added to the curved-signs, by merely making the hook twice the usual size, and a small circle is added at the end of it for a final s or z; thus, $\neg f$ -shn, $\neg f$ -shns, $\neg f$ -shns, $\neg f$ -shns, $\neg f$ -shns, $\neg f$ -shns. The hook may be thickened a little for zhn; thus, $\neg f$ -shn, $\neg f$ -cr-zhn. It is frequently more convenient to write these terminations, when they follow curve-signs, by the full forms, $\neg f$ -shns, \neg

129. The sign — above the line, is used as a word-sign for *objection*, and is the only *shn* hook-sign used as a word-sign in ordinary writing.

CHAPTER XVI.

OF THE ADDITION OF T AND D BY HALVING THE LENGTH OF THE SIGNS.

TABLE.

		, ,
/ %	\ \	(
11	11	60
11	11	23
1,	11	66
1	1	60
9 5	13	69

EXPLANATION OF THE HALF-LENGTH SIGNS.

130. The t and d are sounds of very frequent occurrence, and are often added to other consonant-sounds, with or without the intervention of a vowel, particularly in the formation of the past tenses and perfect participles of the regular verbs. These two sounds are written in phonography by the perpendicular

straight line, which, when added to another sign, or repeated, would sometimes carry the writing below the line, so as to mar the beauty It is desirable, therefore, of its appearance. both for the sake of brevity and elegance, to have a contracted method of representing these two sounds. But every position at which the hook or the circle can be joined to the alphabetical signs, is already occupied. How, then, can the t and d be represented, without the •necessity of writing them in full? This apparent difficulty is beautifully provided for in phonography, by recognising a difference between the full length signs of the alphabet, and the same signs written half their usual length.

- 131. By making the signs of the alphabet half length, we add, therefore, either t or d to their value; that is, the half length sign reads just as the full length sign, with a t or d added to it would read; thus, half length, is the same as By this means it often happens that a word of several syllables occupies less space in writing, than a monosyllable written in full length signs.
- 132. In order to determine whether it is the sound of t or d, which is added by the half length, the following rules must be observed:
 - L The sound of t is added to the whispered

consonants, and that of d to the spoken consonants; in other words, t, if the sign is made by a light line, and d, if it is made by a heavy one; thus, p-t, b-d, f-d, v-d. This applies to all of the consonant alphabet, except the liquids, l and r, and the nasals, m n and ng, which are not distinguished into whispered and spoken.

II. With respect to the four signs, l, r, m, and n, the sound of d is added, if the half length sign is made heavy; thus, $\land l$ -d, $\land r$ -d, $\land m$ -d, l-d; and that of t, if the half length sign remains light; thus, $\land l$ -t, $\land r$ -t, l-m-t, l-n-t.

III. There is no contracted form for ng-t, or ng-d, the sign - half length and heavy, being used for n-d.

133. S of z is added to the half-signs by the circle, in the same manner as it is to the full length signs; thus, p-ts, b-dz, m-ts, m-dz, &c.

134. The same principle of adding the value of t or d, by halving the length, is extended likewise to the compound signs, whether they have a hook at one or both ends; thus, pl-t, bl-d, kr-t, gr-d; pr-t, pl-nt, pr-nt, p-shnt.

135. If there is a final hook, it may be thickened a little when d is added; thus, p-nd, -k-nd, p-nd.

136. The compound-signs, racktriangleright range for these combinations; these signs, half length and heavy are used for <math>l-d, m-d, and r-d.

137. The upstroke r is halved for r-t; thus, \checkmark in the word part; and halved and made heavy for r-d; thus, \checkmark in afford. The downward r-d is, however, generally better, as in board; \angle in cheered; ϵ is l-t. (166.)

138. The treble consonants of the plt (or pld), prd, and pnd-series, should be named in analysing words like the corresponding double consonants, with the addition of t or d, as in peopled (pld), papered (prd), burdened (dnd). (105, 107, 124.) Those of the p-shnt series are named by adding the last syllable of patient, to the several sounds, p, b, t, d, &c.; thus, p-shnt, or with the d sound, as m-shnd, in the word motioned. The contractions, sprt, sprd, strt, pnts, dnts, &c., may be called spurt, spurd, sturt, puhnts, duhnts, &c.

139. The two consonants, represented by the simple half length signs, p-t, b-d, &c., are named together in analysing words, when no distinct vowel comes between them, by a single impulse of the voice, and with as little of the natural vowel sounds between them as possible.

All the monosyllabic names of the several clusters of consonant-sounds may also be used to denote the contracted signs by which they are written; thus, in directing a pupil to write 'pale,' a teacher would say, 'make $p, l \sim$ and place a after the p' (giving the sound only, not the names of the consonants); and, for 'play,' he would say, 'make $pl \sim$ (uttered by one impulse), and place a after it.'

HALF LENGTH SIGNS USED AS WORD-SIGNS.

140. The half length signs, occupying only half the space of a line, are used for one word above the line, and for another upon it, in the same manner as the horizontals (68), as follows, after; immediate-ly (68); establishment; word; not; represent; under; object; subject; God; good; particular; opportunity; short; cannot; account; spirit.

CHAPTER XVIL

- OF THE METHOD OF PLACING THE VOWEL-SIGNS TO CONSONANT-SIGNS HAVING FINAL ADDITIONS OR CHANGES.
- 141. By final additions and changes spoken of in this chapter, are meant the n-hook, and shn-hook, and the halving of the consonant-signs. This last may be regarded as the cutting off of the last half of the sign, and, therefore, as a final change with respect to it, the effect of which is to denote the addition of another consonant-sound, to that of the full length sign. (130.)
- 142. The following are the rules for vocalizing the consonant-signs, having final additions or changes.
- I. If the vowel is to read before all the consonants, place the vowel-sign before, that is, on the left-hand side of, (35) or above, (40) the consonant-sign, in the same manner as if there were no final addition or change; thus, open; opened; heighten; heightened; option; action; often; east; aimed; wished; whipped.
- II. If the vowel is to be read between the two consonants, place the vowel-sign after, that is, on

the right hand side of, or below the consonantsign; thus, pain; nan; nan;

III. If a vowel is to follow both consonant-sounds, that is, if it is to come after the sound, which would be represented by the final hook or halving, and if this vowel is to end the word, the final hook, or halving, must not be used, as there is, in this case, no place for the vowel-sign to occupy. The added consonant-sound, that is the n, t, or d, must be written in full; thus penny; beauties. The termination shn, would be written in full, thus, or d but, as it is never followed by a final vowel, the contracted forms may be always used thus, \mathcal{L} or \mathcal{L} (122,) or else the simple hook.

When still another consonant is to follow, the contracted form may in all cases be retained,

and the vowel-sign placed to the following consonant sign; thus, \(\gamma \) funnel; \(\gamma \) better; \(\gamma \) writer; \(\gamma \) matters; \(\gamma \) nationally.

143. In all cases, a hook or circle, or a hook and circle at the beginning of a consonant-sign, having a final hook or halving, will be read precisely as it would be if there were no final hook or halving; the writer will therefore write accordingly, thus, \ plan, \ planned; \) season, \ seasoned; \ sober, \ sobered; \ fable, \ fabled; \ measure, \ measured; \ wager, \ wagered; \ seem, \ seemed; \ save, \ saved; \ save, \ saved; \ saved; \ humor, \ humored.

CHAPTER XVIII.

OF THE LOOPS ST AND STR.

144. There is a second form for the common combination st, (beside the s-sign half length,) which is a loop or oval joined to a long consonant-sign. It is made half the length of the long sign to which it is joined. A larger loop, made two thirds the length of the long sign, is used for str.

The several sounds represented by these loops are to be read as one, and the loops, joined at either end of the consonant-signs, are then used, in all respects, at the beginning and end of words, as the circle s; thus, pless, pless, pless, pless, mist, mist, mister; seam, steam, steam. They should not, however, be made within a hook, as for stable, which should be written for the stable of the stable.

145. An s or z may be added to the loops, by continuing a stroke to the other side, and forming a circle; thus, & tests; crusts; spinsters. A vowel-sign may be put inside of the large loop; thus, & faster.

146. The small loop, reduced in size, may be added to the half length signs; thus, & stated.

Both loops may be occasionally used in the middle of a word; thus, in distinct; in disturb.

147. When a word begins with a vowel, followed by st or zd, the half length strokes must be used thus, γ Easter; γ wisdom.

The two forms of s may be distinguished, as 'the stroke s,' and 'the circle s;' and the two forms of st, as the stroke est, and the loop est, (expelling the vowel entirely when analysing words.) So we may also speak of the stroke stur, and the loop stur.

The st loop is used as a word-sign for the word first, placed on the line and inclined to the right, thus, o

CHAPTER XIX.

SPECIAL SCHEME OF VOWEL-SIGNS.

- 148. It was laid down as the rule, in treating of the l and r-hook series of signs, that those signs cannot be used when a vowel comes between the two consonant sounds which they represent; and that the l or r must in that case be represented by its own proper sign, or else the vowel-sign must be omitted. (105.) This rule is without exception when the regular method of writing the vowel-signs is employed. The following peculiar mode of representing the vowels, has, however, been provided, by which they may be written so as to read between the sound of the alphabetic-sign and that of the l or r added by the hook.*
- 149. The simple vowel-sign of the first group is a small circle (half the size of the s circle) written for the full vowels, precisely where the dot or other ordinary vowel-sign would be written to read, after; and, for the stopped vowels, precisely where the ordinary vowel-sign would be written to read before the double

^{*} This method is extremely useful in restoring the reporting style, in which the vowels are chiefly omitted, to the fuller style of writing. Beginners are recommended not to attempt to practise it, until they are entirely familiar with the common mode of writing the vowels.

The third-place circle, for the full vowel, may be put before a following consonant; thus, Charles, Parliament.

- 150. The second group of the simple, and all of the compound vowel-signs, are the same in this as in the common method of vocalizing, but they are written differently; thus, I. They are struck through the double consonant-sign; as, & purse; & full; - quail. II. The dash for the sixth vowel o, is written in a slanting direction; as \ pour; \ coal. III. When it is inconvenient to strike the vowel-sign through a consonant-sign, on account of interfering with a hook or circle, it may be placed at the beginning or end of the consonant-sign; as 'cord; f toil; con secures; regulation. This can only be done, however, at the beginning or end of a word. If the difficulty occurs in the middle of a word, it is better to write the consonants by their full signs.
- 151. The l and r-hook-signs may also be halved when vocalized in this manner for the addition of t and d; thus f fault; f tilt; f board.

CHAPTER XX.

OF THE PREFIXES AND AFFIXES.

152. Besides the prefixes and affixes already noticed, (65) the following are extremely useful. They should be written near the body of the word but not joined.

PREFIXES.

- For accom, write a heavy dot; as, accomplished; accompany.
- For incom, incon, incog, write above the line; as, incomplete; inconstant.
- For recom, recom, recog, write \(\) as \(\sim \) recommend; \(\sim \) recognise.
- For uncon, uncom, incog, write on the line; as, unconcerned; uncommon.
- For circum, write o at the beginning of the next consonant; as of circumscribe; circumstance.
- For inter, and intro, write \smile in any position near the following letter; as \smile interview; \smile introduction.
- For magna, magni, write above the body of the word; as magnanimous; magnify.

For self write o at the side of the next consonant; as 9 selfish. Write this circle twice the size of the vowel circle. (149.)

AFFIXES.

For by, write as finely; patiently; or else in full, as namely, when the l can be more conveniently joined, which generally is the case, except after a final hook. The vowel may then be added or not, at pleasure.

For self, write o; as (o thyself; o myself; or o himself.

For selves, write a large circle, as, $\circ \circ$ yourselves; to themselves.

Note. — After p, b, and the downward l, it will be found more convenient to join the consonant ng, than to take off the pen and make the dot for the termination ing; thus, spring, or without the vowels being.

CHAPTER XXI.

OBSERVATIONS ON DIFFERENT MODES OF WRITING.

PARTICULAR RULES FOR CORRECT WRITING.

153. Phonography affords a great variety in the forms of words. In some instances the selection is directed by principles which ought not to be neglected; and in others the taste alone needs to be consulted. The learner insensibly acquires the most facile and rapidly written forms by practice in writing. An acute angle is more easily made than an obtuse one; thus, / is preferable to) A full form, which can be made without raising the pen, is often preferable to a more contracted one, which requires the pen to be raised; thus, ex is better than for sensible; than for impossible, &c. It is always better for the hand to proceed forward than to go backward; thus, should be preferred to for simple; and to for several, &c. The most contracted is not always the easiest form. Select those forms which can be readily vocalized.

154. It results from the rule for combining consonant-signs, (p. 48) that a straight-line-sign

is repeated by making it twice the length of a single sign; thus, with kick; but a half length consonant-sign must not be joined to a full one, in this or any other case, where it will not form an angle; thus, we must write, not for correct; and not for fact. This difficulty does not occur when a curve-sign is repeated; thus, main, mained.

PECULIAR AND EXCEPTIONAL MODES OF WRITING.

155. After a half-sized consonant or a final hook, circle, or loop, the first full vowel e, when terminating a word, may be written by a full-sized dot at the end, as \(\) pretty; \(\) funny; \(\) fancy.

The word any should be written above the line, although its accented vowel is No. 2, in order that, when the vowels are omitted, it may not be mistaken for no, a word of opposite meaning, represented by n on the line. Men and man may be distinguished, thus,

156. To express the vowel, No. 2, between s-s, when the large circle is used, a dot must be made in the centre; thus, of The other simple vowels are of very rare occurrence between s-s. A diphthong-sign may occasionally be inserted in the large circle; as of pre-

cisely; persuasive. Here there can be no distinction made between we, wa, wah, &c.

158. A hook made by continuing the s or the ns circle, and the st and str, or the nst and nstr loops to the other side of the consonant-sign, adds the syllable shn, as position; persuasion; superstition; ministration; compensation; transition. In this case the hook, shn, may be vocalised, for a first or second-place vowel only, by writing the vowel at the left, or above, for a first; and at the right, or below, for a second-place vowel, as in some of the examples above.

159. The circle s may be added to this hook, which must then be made conspicuous; as, positions; physicians; superstitions; llustrations.

LICENCES IN WRITING.

160. The vowel-signs may gradually be left out by the learner, in private writing and reporting, as he acquires facility in reading, until they will hardly be used at all. They may be inserted afterwards, if necessary, to restore the writing to a fuller style. In correspondence, book-keeping, &c., they should be mostly inserted, except the fifth or natural vowel, when not

initial, aspirated, nor accented, in which case it may be omitted before l, r, m, and n, without any danger of ambiguity; thus, ______ manual; \(\tau_{exter}; \) \(\text{blossom}; \(\text{clesson}; \) \(\text{lesson}; \) \(\text{learn}; \) \(\text{or is aspirated}, \) \(\text{as in } \) \(\text{learn}; \) \(\text{or accented}, \) \(\text{as in } \) \(\text{learn}; \) \(\text{or accented}, \) \(\text{as in } \) \(\text{learn}; \) \(\text{or accented}, \) \(\text{learn}; \) \(\text{

When z occurs in the middle or at the end of a word, it may be written by a light circle, as if it were an s, because it is somewhat trouble-some to make the heavy circle; thus, instead of for amazed; and finstead of for tease. Sometimes the thickening of the circle is necessary at the end of a word, to prevent ambiguity, as in the phrases, in the phrases, in the laws of a kingdom; and the find the loss of a kingdom; or the heavy stroke, z, may be written when there is any danger of such confusion. The same observations may be extended to the loop for zd, which may be made like the light loop, st, or the full signs written instead.

the heavy dot at the end of the word; thus, —. faculty; agency. The plural may then
be made by the small circle instead of the dot;

- as ..., faculties, except it is more convenient to use the double circle; thus, or rather than agencies.
- 162. It is allowable to use a prefix or affix, that is similar in sound, to those given in the list (152), as, we enterprise incumbent.
- 163. A word-sign may be used as a prefix or affix; thus /-) advantageous; hereafter. In the useful words, understanding, understood, the nd signifying under, may, for convenience, be joined; as y understand; y understood (144). The n and ng signs may be joined thus, for anything.
- 164. The skeletons \bigcap will always be recognised, as also and always, because no other words have the same skeletons. The same may be said of many other consonant outlines of words.
- 165. The advanced writer may halve the length of the *light* consonant-signs, (abrupts and semi-vowels,) for the addition of d, as well as t, and of the *heavy* ones for t, as well as d; thus, he will use \sim for *plate*, and *played*; \sim for *bite*, and *bide*, &c., depending on the context to determine which word is meant.
- 166. The following are word-signs in which this licence is admitted; f told; f toward; Lord; according; great; without; that.

The double vowel-sign for the diphthong o e, taken from the complete Alphabet of Nature, by Mr. Ellis, may be used in such English words as wowing.

CHAPTER XXII.

ALPHABETICAL LIST OF THE WORD-SIGNS.

According-ly.	C due.
_ account.	C for.
ac-knowledge.	√ from.
/ advantage.	/ General-ly.
cafter.	gentleman-men.
all, awe.	give-n.
calone.	- God.
already.	_ good.
. an.	_ great, grate.
. and.	L Have.
→ are.	' him, hymn.
o as.	how.
Be, bee.	Immediate-ly.
s been, bin.	important-ce.
、but, butt.	improve-ment.
Can.	in, inn.
cannot.	individual.
come.	° is.
Do.	it.
J done, dun.	Language.
Tevery.	
y establish-ment.	<u> May.</u>
, First.	me.

PHONOGRAPHY.

more.	(That.
No, know.	the, thee.
onor.) their, there.
onot, knot.	(them.
Object.	thing.
objection.	(think.
Joccasion.	to, two, too.
of.	together.
on.	told.
	յ toward.
only. opinion.	i truth.
opportunity.	√ Up.
or.	\ upon.
↑ Particular.	under.
√ phonography-ic.	ر usual.
) pleasure.	Yery.
nrinciple-al.) Was.
Copublic.	were, way, weigh.
Remark.	what.
	/ which.
_ represent.	, who.
J Shall.	will.
2 short.	with.
, should.	without.
) so, sew, sow.	word.
∾ spirit.	would, wood.
_ subject.	Your, you, yew, ewe

These are the word-signs, to the number of one hundred, used in common writing. In the reporting style many others are admitted, but they should not be learned by a beginner.

- 167. The word-signs for cannot, objection, remark, and without, are placed above the line for particular reasons, though they have a second or third-place vowel in the accented syllable.
- 168. When a word-sign represents a verb in the present tense, the past tense, if formed regularly by the addition of t or d, may be represented by the same sign; as _represent, and represented. The context will determine the time of the action; if necessary, however, a t or d may be added for the past tense; thus, _| represented.
- 169. The same word-sign may be used for the adjective and adverb, when the latter is derived from the former, by affixing ly; thus, I general, and generally.
- 170. The plural of a word-sign may be written by merely adding the circle s; thus, good, __o goods.
- 171. The shn-hook may be added to the word-sign, bl (public), to represent publication. The plural of hand must be 3 or 9 (71.)

CHAPTER XXIII.

PHRASEOGRAPHY.

171. To promote expedition in writing, the advanced phonographer may join two or more words together, and thus, sometimes, express a phrase without removing the pen. The following examples will show how other useful combinations may be formed on the same principle, which is to express the leading consonants of those words which most frequently occur together:—

have been done. have been made. $_{3}$ are not. as far. as far as. as good as. ~ I am not. as great as. 1 I do. ✓ I have. Qo as soon as. as soon as possible. I have been. ⁸ as well as. \mathbf{a} at the same time. could be. could not. → if it. could not be. if it had not for instance. L it is.

I it is but. there are. L it is not. there are not. \mathcal{L} this is. h it is said. l it would. to be. it would be. to do. may be. to have. must be. we are. must have. E we were. y with which it is. \sim must not. \sim must not be. (with which it ought to be. is not. which it may. should be. should do. (which it would should have. have been. should not, ✓ you are, 6 that is. you will,

OBSERVATIONS ON THE PRECEDING PHRASES.

- 172. (Have been made.) The hook of been and done may be omitted, when it is inconvenient to write it; but, as a general rule, it is better to make it, in order to distinguish been from be, and done from do and had.
- 173. (I) In attaching I to any word, write either the first stroke of the Phonograph downwards, or the second stroke upwards. A dis-

tinction will thus be made between I am, and which it may.

174. Now may be contracted to and which forms admit of the remaining part of the vowel being added. It is only for the sake of cherishing reporting habits, that this mode of writing the words is recommended, because, in the ordinary style, _ _ might easily be written; but in reporting, when the vowels are omitted, would stand for _ _ and it becomes important to have some means of readily distinguishing them; hence, we write _____ and, in order to cultivate reporting habits in common Phonography, we admit these forms in the ordinary style, seeing they can be filled up thus, ___ Indeed, most of the phrases here given may be vocalised; thus, & as well as; \ \ \ \ I do; \ \ must not be, &c.

175. In uniting a vowel word-sign to a consonant-sign, the consonant-sign must be placed in the situation of the vowel. See *I do* and *should do*. *I may*, and *I may not*, will therefore have the same outline, and be in the same position as *I am*, and *I am not*. This cannot be avoided, for, if the vowel-sign were brought down to the line, thus, _ for one of these phrases, in order to distinguish it from the other, it would usurp the place of the phrases, but may, and but me. *I*

may, and I may not, may be written in the same way as I am, and I am not, and the vowel added in the former case; the latter being the more useful phrases, may be allowed to be written without the vowel. When two consonant word-signs are joined, let the first determine the position; thus, ____ can be; ____ cannot be.

CHAPTER XXIV.

STOPS, &c.

176. Stops may be written in the usual way. except the period, for which write a small cross, (x). The following notes of affection will be useful: — §? Interrogation; as, § How are you? Exclamation, (! might be mistaken for doing.) Laughter. | Grief. The notes of interrogation and exclamation are placed both at the beginning and end of the phrase - the note of interrogation being reversed at the beginning. The accent is indicated by a short fine line. close to the vowel, and parallel to the consonant; it may be struck through those vowels which are written at right angles to the consonant; thus, experience; solution; phrases as in long hand manuscript, by drawing one, two, or more lines underneath; a single line under a single word must be made wave-like, to prevent its being mistaken for the consonant k. Write Arabic numerals as usual, or express the words in phonography; this latter method is always best for one and two.

A capital letter is indicated by two short lines under the beginning of the word; as ' meaning, The 'Times' Newspaper.

CHAPTER XXV.

OF THE NAMES AND ORDER OF THE SIGNS OR LETTERS
IN THE FULL YOWEL AND CONSONANT ALPHABET.

177. The order of the vowels is fully shown in chapter II. (42.) The names of the full vowel-signs are always the same as the sounds of the full vowels. For the stopped vowels, as they are extremely short, and too abrupt for conversation, it is found convenient to substitute names, formed by uttering the consonant t after the vowels; thus it, et, at, ot, ut, ŏŏt. These names should not be used in analysing words, but only when these vowels stand unconnected, as the initials of proper names, &c.

The three proper diphthongs, i, oi, ou, and the very common improper diphthong u (in union), are represented, in phonotypic printing, by single letters. (See appendix.)

The consonants are so arranged, that it is equally a scientific order, whether we utter them as the signs follow each other, taken in the horizontal or the perpendicular columns of the alphabet table, chapter I (30.) If we proceed horizontally, we take the light and heavy signs together; thus p, b; t, d, &c.

Proceeding perpendicularly, we have p, b, f, v, m, &c. The names adopted for the consonant-signs, to be used by printers, and in conversation, &c., but not in analysing words, arranged in this order, are, pe, be, ef, va, am, wa, te, de, ith, the, es, za, el, ra, en, ya, cha, ja, ish, zhe, ka, ga, ing, ha.

As wa, (or way), and ya, (or yay) are the names of these ambigues, the signs . . should be written on the line, as initials, for W. and Y.

These two weak consonants are distinguished by the term *coalescents*, as the third ambigue (hay) is by the term breathing. In phonotypy these three sounds have each a distinct consonant-letter. (See appendix.)

APPENDIX.
PHONOTYPIC ALPHABET.

Туре.	CONSONANTS. Example of Sound.	Name.	No Te	704	VOWELS. Example of Sound. 2	Tame.
Рр	pay	pi	ĺ			
ВЪ	bay	bi	1 T		feet	i
Εf	few	ef	I	i	fit	it
Vν	view	37	2 8	3	mate	8
Мm	sum	am	E	l e	met	eŧ
W w	way	we sw	2 1 2	E se	e mare	æ
T t	toe	ti	-			
Dd	doe	di		l a	psalm	8
Гt	thigh	it	l E	l a	Sam	at
H d	_	đi	4 6) ө	caught	•
a a S s	thy seal		C) o	cot	ot
		68	5 T	u	cùr	u
Zz	zeal	3Z		Ιų	curry	bŧ
Ll	bail	el	l			
Rг	bare	re	6 C	۵ (bone	۵
Νn	sun	en	7 U	T wa	fool	W
Yу	yea	yε	τ	Ju	full	ut
€g.	chew	ÇЕ				
Jј	jew	jε			-	
Σſ	\mathbf{mesh}	i∫	o	ОМІ	OUND VOWELS.	
Z 3	measure	gi	ac ±		hiah	i
Сc	call	ce	Ψį		high	•
Gд	gall	ge	Φ	ð	hoy	ð
Иŋ	sung	iŋ	স্ত :	8	how	8
Нh	hay	hε	₩ :	y	hew	y

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